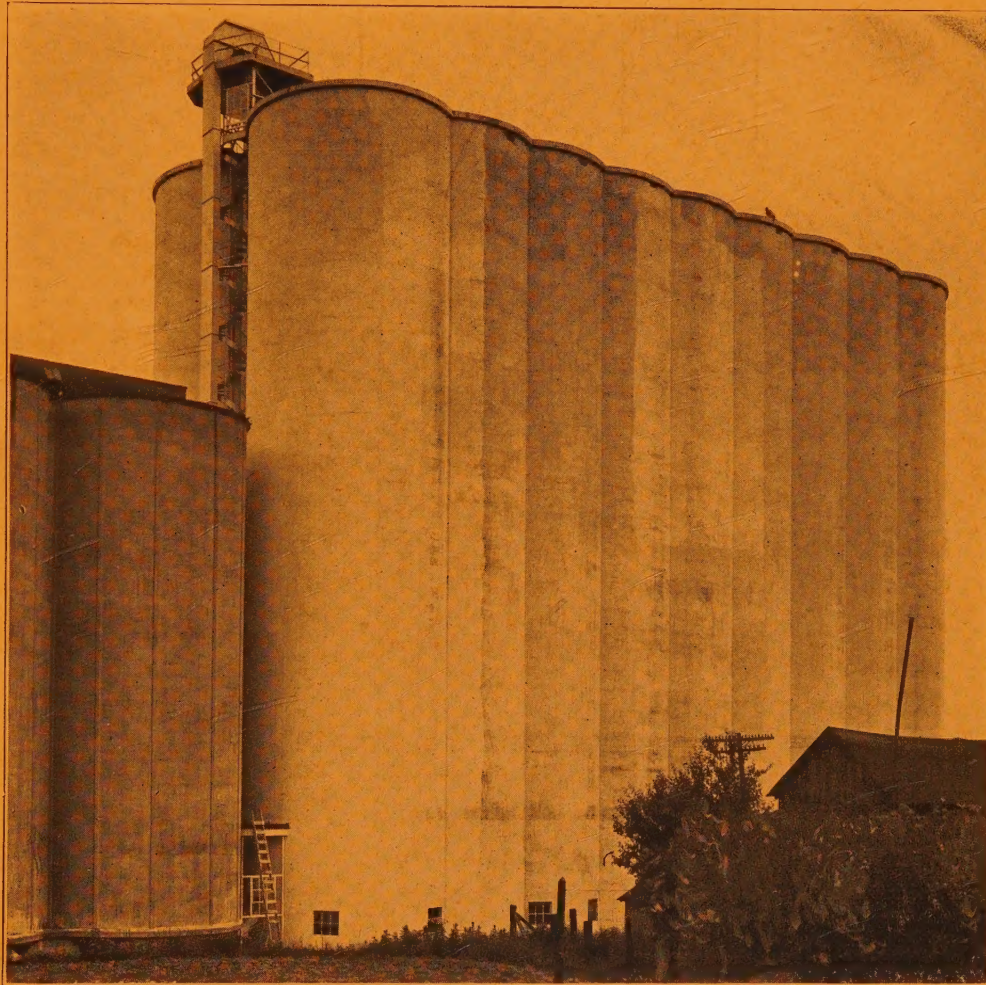


# GRAIN DEALERS JOURNAL

Vol. LX. No. 8.

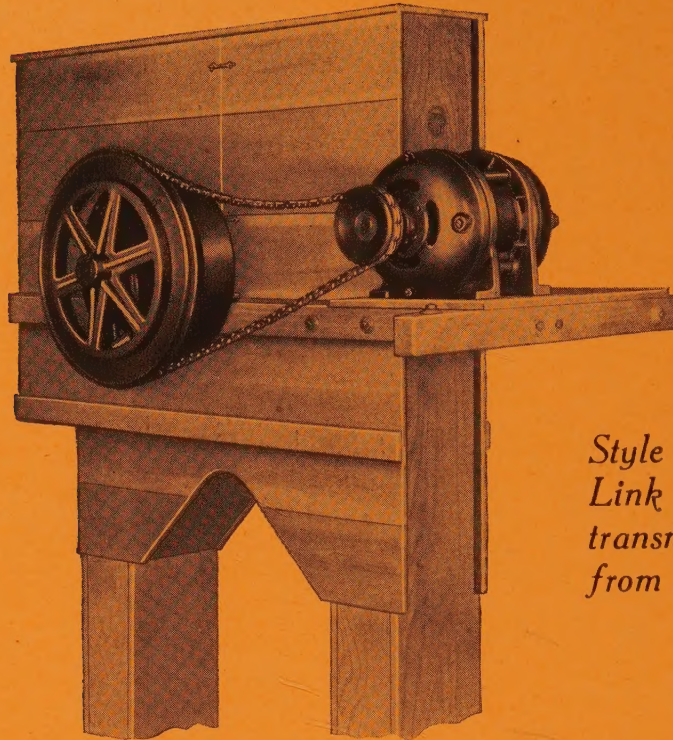
Chicago, Ill., U. S. A., April 25, 1928.

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[Description on page 512.]



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(Continued on next page.)

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# Directory of the Grain Trade

In Organized Markets Only Members of the Local Grain Exchange Will Be Listed

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Stocks Bonds Grain Cotton

CARHART CODE HARWOOD CO.  
**Grain Commission**  
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Merchants Exchange  
Members

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Reduce your telegraph tolls. Keep  
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Its 146 pages contain 13,745 code words  
for expressions used in the grain trade,  
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Price \$2.00.

**Grain Dealers Journal**  
309 S. LaSalle St. Chicago, Ill.

## PICKER & BEARDSLEY COMMISSION CO.

"THE CONSIGNMENT HOUSE OF ST. LOUIS"  
GRAIN, HAY, GRASS SEEDS, KAFIR, MILO  
125 MERCHANTS EXCHANGE BLDG. ST. LOUIS, MO.

**Nanson Commission Co.** GRAIN, HAY and SEEDS  
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**LANGENBERG BROS. GRAIN CO.** St. Louis  
Established 1877 New Orleans

Grain and Hay  
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Exchange Members

**HARPER GRAIN CO.**  
Wabash Building  
**Modern elevator facilities  
at your command.**

I like your Journal fine. Enclosed  
find check for \$2.00 for continuation.  
Keep it coming to me.—W. J. Boyd, Boyd  
Brothers & Ross, Lynnville, Tenn.

**SAMUEL WALTON CO.** Established 40 Years  
EMPIRE BUILDING PITTSBURGH, PA. RECEIVERS AND SHIPPERS  
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GRAIN and FEED  
Own and Operate the  
IRON CITY GRAIN ELEVATOR  
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ESTABLISHED 1872  
**R. S. McCAGUE, Ltd.**  
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**JOHN WICKENHISER & CO.**  
Wholesale Grain Dealers  
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We make track bids and quote delivered  
prices. Solicit Consignments of Grain and  
Clover Seed. Members Toledo Produce  
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Reliable Service on  
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Since 1887  
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**SOUTHWORTH'S WEEKLY  
REVIEW**  
Covers GRAIN, SEED AND COTTON  
It is FREE to all within our business range  
**SOUTHWORTH & CO.**

**SOME GRAIN DEALERS** have realized a fortune from the offerings others overlooked. Our advertising pages as well as our reading matter columns present real opportunities to alert readers. Better keep your eyes open and look around as the entire contents of the Journal are prepared especially for you.

# DENVER

A busy grain and milling center equipped to handle shipments promptly. A quick, active market featuring beans in addition to all grains. Any Grain Exchange member listed below is equipped to serve you.

**Houlton Grain Co.**

*Wholesale Grain.  
Get in touch with us.*

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*Receivers shippers of all kinds of grain.*

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Note:—All grain bought by members of the Denver Grain Exchange which is graded at Denver and which does not come up to contract grade is discounted by three disinterested members of the Exchange when discount is not provided for in the contract.

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**SCHOLL GRAIN CO.**

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STORAGE CAPACITY 2,500,000 BUSHELS

## RECEIVERS, SHIPPERS AND BROKERS

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GRAIN MERCHANTS

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Successors to

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Milling Wheat Corn Oats

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WE BUY  
**SALVAGE GRAIN**

and are in position to use any grade including the extreme wet, sour salvage

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## GORDON GRAIN CO.

CONSIGNMENT SPECIALISTS

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Send Your Offerings to  
**The Abel-Whitman Co., Inc.**

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**L. W. FORBELL & CO.**

*Strictly Commission Merchants  
Specialists in WHEAT, CORN, OATS*

*Consignments Solicited*

340-342 Produce Exchange, NEW YORK, N.Y.

## Clark's Double Indexed Car Register

for car lot dealers

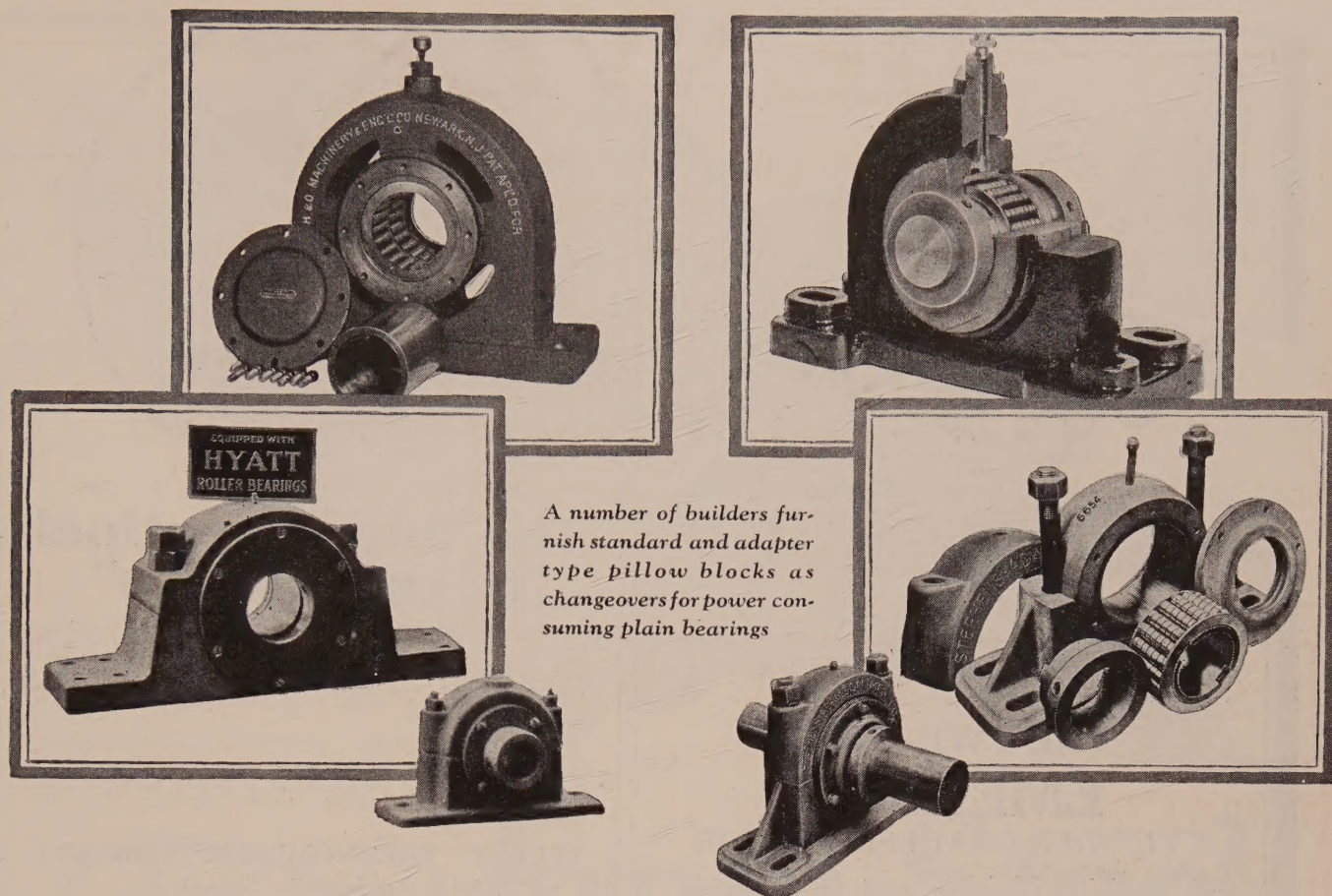
Is a record book designed to afford ready reference to the record of any car number. Facing pages 11x15½" of heavy ledger paper are each ruled into five columns, those on the left-hand page being numbered 0, 1, 2, 3 and 4; while columns on the right-hand page are numbered 5, 6, 7, 8 and 9. Each column is ruled into three distinct divisions with the following sub-headings: "Initial," "Car No." and "Record."

The marginal index figure represents the right hand or unit figure of the number entered; and the column heading the second or tens figure. So that the required number can always be instantly found if properly entered. Form 40 contains 42 pages, bound in heavy canvas covers with spaces for registering 13,200 cars. Price, \$2.50. Weight 1¾ lbs.

FORM 42 contains 72 pages, bound in art canvas covers with spaces for registering 21,600 cars. Price, \$3.25. Weight 2¾ lbs.

Grain Dealers Journal, 309 So. La Salle St., Chicago, Ill.

I surely am a friend to your Journal, as thru your columns I have been able to secure positions.—Walter Hunsaker, Avard, Okla.



*A number of builders furnish standard and adapter type pillow blocks as changeovers for power consuming plain bearings*

## Hyatt endurance extends pillow block life

*These pillow block manufacturers standardize on Hyatt equipment:*

L. J. Brainard & Sons Co.,  
Chicago, Ill.

H. & O. Mach. & Eng. Co.,  
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Link Belt Supply Co., Minne-  
apolis, Minn.

The Plant Eng. Co., Plano, Ill.

Stephens-Adamson Mfg. Co.,  
Aurora, Ill.

Union Iron Works, Decatur,  
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The history of Hyatt Roller Bearings applied to pillow blocks records unprecedented savings in power, lubricant, replacement and attention.

In addition, sturdy Hyatts offer unparalleled operating stamina. The helically wound steel rollers absorb shocks of load and prevent them from damaging adjacent mechanical parts.

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Hyattized pillow blocks solve many bearing problems. Get in touch with our engineers, or any of the builders listed, for further details.

HYATT ROLLER BEARING COMPANY  
Newark Detroit Chicago Pittsburgh Oakland

**HYATT**  
ROLLER BEARINGS

PRODUCT OF GENERAL MOTORS



**N**OW you can clean more grain—all kinds of grain—clean it thoroughly and at less cost, with

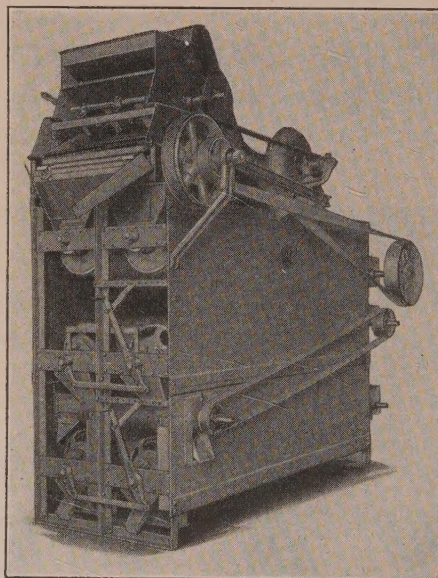
## THE TWIN CITY EMERSON CYLINDER GRAIN SEPARATOR

—A receiving separator that grades wheat, oats and barley as well as separates on the same machine. Moreover, it aspirates and scalps while it cleans, with uniformity that will thoroughly please you.

For its speed, efficiency, and operating economy, the EMERSON has been adopted by over 700 elevators and mills. Rather than go any longer with unsatisfactory grain cleaning methods, it will pay you generously to investigate the EMERSON at once.

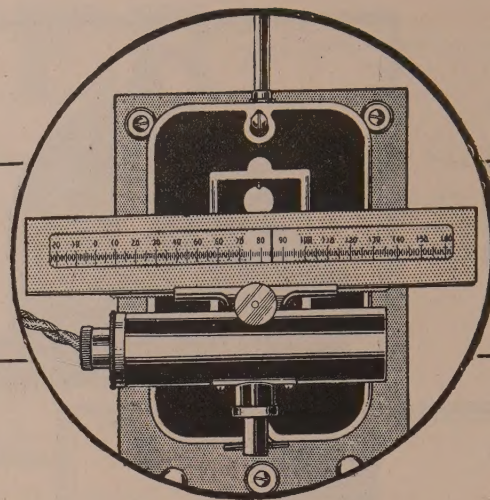
Our new illustrated booklet will give you complete facts. Write today.

Made  
in  
Six  
Sizes.



### TWIN CITY SEPARATOR CO.

1712 Madison St. N. E., Minneapolis, Minn.  
Winnipeg, Man., Canada



## The Silent Sentinel "Over the Bins"

No longer is it necessary to guess as to the condition of your grain. By simply turning a dial numbered to read the condition of the grain every five feet from top to bottom the **ZELANY THERMOMETER SYSTEM** gives accurate and dependable temperatures, and you know in a moment's time the condition of the grain in any bin in which it is installed.

Consider this method of determining the condition of your grain as compared with the probing or turning a bin of grain to determine its condition, as well as the saving made in handling it unnecessarily or having to pay a man to probe it and then know the condition only a few feet from the top.

**ZELANY THERMOMETER COMPANY**  
542 S. Dearborn St., Chicago, Ill.

## Grain Receiving Record Books

**Grain Receiving Register.** One of the best forms for recording wagon loads of grain received. It contains 200 pages, size 8½x13½ inches, ledger paper, capacity for 8,200 wagon loads. Bound in canvas. Some enter load records as received, others assign a page to each customer, while others assign pages to different kinds of grain. Bound in strong board covers, canvas back. Headings of 11 cols. are: "Date, Name, Kind of Grain, Gross, Tare, Net, Bushels, Pounds, Price, Amount, Remarks." Shipping weight, 2½ lbs. Order Form 12AA. Price \$3.00.

**Wagon Loads Received** has columns headed: "Month, Day, Name, Kind, Gross and Tare, Net Pounds, Bushels, Pounds, Price, Dollars and Cents, Remarks." It has 200 pages, size 9¼x12 inches, and room for 4,000 loads. Printed on linen ledger paper, with strong cloth covers and keratol corners and back. Shipping weight, 2 lbs. Order Form 380. Price \$3.00.

**Receiving and Stock Book.** Many dealers prefer to keep each kind of grain received from farmers in separate columns so each day's receipts may be easily totaled. This book is designed for this purpose. It contains 200 pages, size 9¼x12 inches, and will accommodate 4,000 loads. Well bound in black cloth and keratol back and corners. Shipping weight, 2½ lbs. Order Form 321. Price \$3.00.

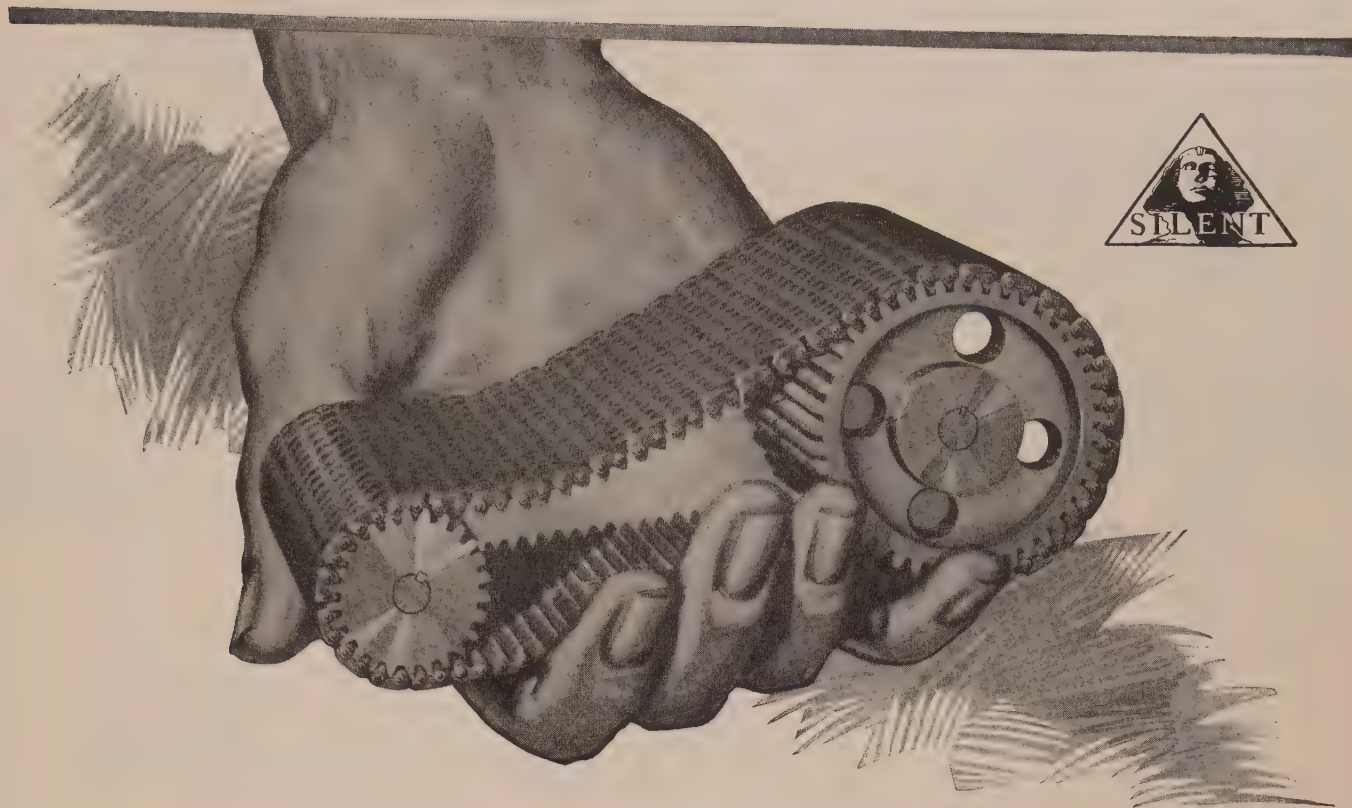
**Grain Receiving Ledger** is an indexed book especially adapted for keeping individual accounts with farmer patrons. Each page is 8½x13½ inches, numbered and ruled for 44 entries. Ledger paper and well bound in cloth with keratol back and corners. 228 pages. Shipping weight, 3 lbs. Order Form 43. Price, \$3.50.

Form No. 43 XX contains double the number of pages. Shipping weight 4½ lbs. Price, \$5.50.

**Grain Scale Book** is designed to assign separate pages to each customer and their names can be indexed so their accounts can be quickly located. It contains 252 numbered pages, of high grade linen ledger paper. Each page is 10½x15¼ inches, will accommodate 41 wagon loads and it has a 28-page index. Well bound with cloth and keratol back and corners. Shipping weight, 4½ lbs. Order Form 23. Price, \$4.75.

### Grain Dealers Journal

309 South La Salle St., Chicago, Ill.



*From Stock*

# LINK-BELT SILENT CHAIN DRIVES

— $\frac{1}{4}$  to 15 H. P. in speed ratios of 1 to 1 up to 7 to 1 from a distributor near you. Book No. 725 makes ordering a simple matter. Send for a copy today. Link-Belt Silent Chain Drives are built

in sizes from  $\frac{1}{4}$  to 1000 H. P. and over. Operate on short or long centers, quiet, smooth running, and are not affected by atmospheric conditions. Send for a copy of Silent Chain Data Book No. 125.

## LINK-BELT COMPANY

Leading Manufacturers of Elevating, Conveying, and Power Transmission Chains and Machinery

3361

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Utica  
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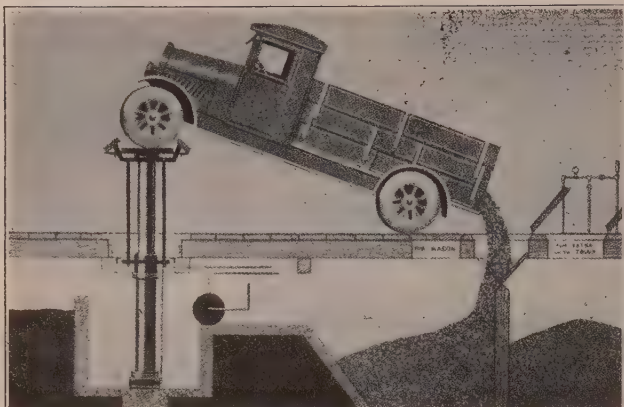
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Montreal

# LINK-BELT



## Van Ness Hydraulic Truck and Wagon Lift

This Dump is automatically self-lubricating.

No valves, leather gaskets or delicate parts in Hydraulic Cylinder.

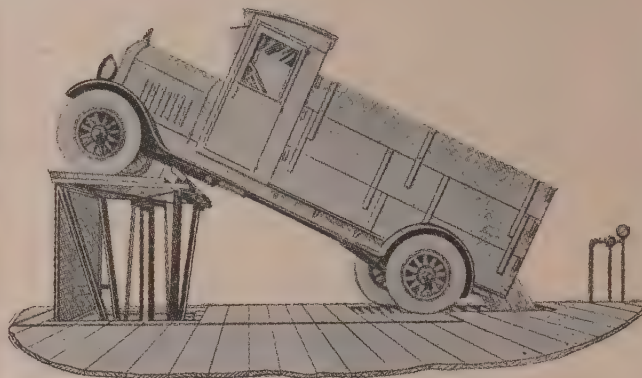
Can be installed at extremely low cost.

*Write us for prices*

Manufactured and Sold by the

**R. M. Van Ness Construction Co.**  
Omaha, Nebraska

## Winter's Truck and Wagon Dump ALL STEEL CONSTRUCTION



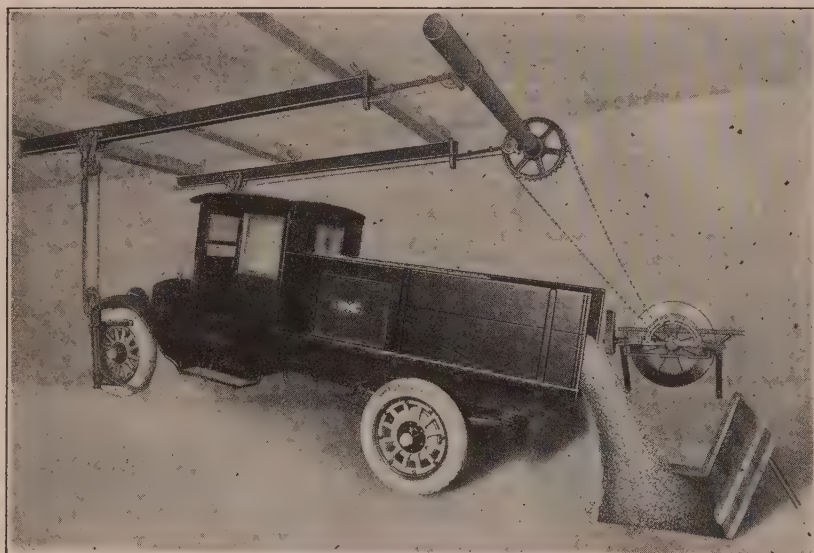
Winter's Dump embodies quality which meets the requirements of grain elevator operators, where service, low cost of installation, and construction are the essential points.

Equipped with Roller Bearing cast iron ring piston. Lifts on all four corners.

Write for full particulars.

**CLOW-WINTER MFG. CO.**  
Minneapolis, Minn.

## McMillin Wagon and Truck Dump



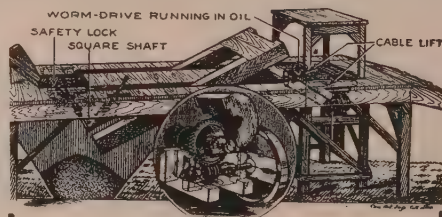
The Superiorities of the McMillin dump are so readily apparent to the man who is in need of equipment of this kind that a short investigation will sell the most skeptical. And one user sells many others.

Its being always ready for operation either by hand or power, and dumping from the shortest wagon to the longest truck in one single dump door, as well as dumping in additional dump doors should conditions demand;—its small amount of power required;—low cost of installation;—strength and durability; as well as perfect control in both raising and lowering vehicles,—are a few of the many superior points of advantage and are features which enable us to offer the best and most simple and most economical dump at a reasonable price: both in first cost, installation cost and cost of operation.

Circular fully describing detailed construction of this dump as well as the operation and giving plans for installation from which you can determine how this dump would fit in your driveway, will be mailed upon request.

ADDRESS

**L. J. McMILLIN, 525 Board of Trade Bldg., Indianapolis, Ind.**



**NEWELL CONSTR. & MACHINERY CO.**  
Cedar Rapids, Iowa  
*Originators of the Electric Truck Dump*

## What have you? FOR SALE

An Elevator  
Machinery  
Seeds

## Do you want?

An Elevator  
Machinery  
Position  
Partner  
Seeds  
Help

**Grain Dealers Journal**  
CHICAGO, ILL.

has 6,000 readers who would like to know. Tell them thru a 'For Sale & Want' Ad. Costs 25 cents per type line.

Grainfield, Kan.—The Journal is well worth the money. Send it along.—F. B. Cox.

# Quicker Dumping— Cleaner Grain



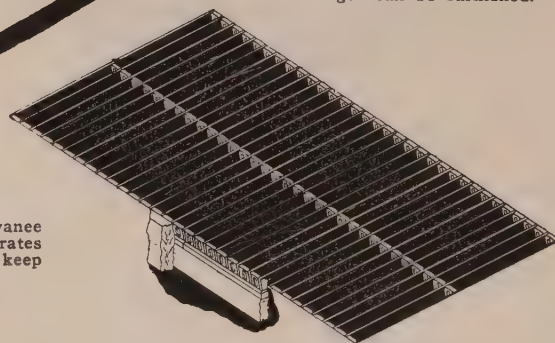
# Kewanee

## All Steel TRUCK LIFT and Steel GRAIN GRATES

Read the letter from the Penrose Elevator Co. This tells the story of what Kewanee Truck Lifts will do better than we can. Note they say their customers like the safety guard—and that they like the grain grates. Also that they have not found any truck too heavy to handle.

### Kewanee STEEL GRAIN GRATES

Eliminate sweeping and back-breaking door lifting, also save the cost of keeping trap doors repaired. Any length can be furnished.



The combination of a Kewanee Truck Lift and Steel Grain Grates speeds dumping and helps keep dirt out of the grain pit.

Many exclusive Kewanee advantages, such as all-steel, roller-bearing construction make them the finest truck dump that can be had. Yet installations everywhere prove that the total cost installed is never more, but usually less, than for any other reliable device.

#### PENROSE ELEVATOR CO.

GRAINS SEEDS FLOUR MILL FEEDS COAL  
TANKS TROUGHS AND WIRE

R F D NO 1 MENDOTA ILL. Feb. 11, 1928

Kewanee Implement Co.  
Kewanee, Ill.

Gentlemen:

Since installing our Kewanee Truck Lift in the summer of 1926, we have handled several hundred thousand bushels of grain. We have put it to every possible test, during that time, yet have not found any truck too heavy on any hauling equipment which we could not handle over the lift.

Our customers like the safety guard which makes it impossible for a horse to get into the pit, and we ourselves especially like the grates which eliminate all back breaking door lifting.

We are much impressed with the simplicity and absolute reliability of the lift, there being so few parts which can get out of order, even with hard usage. We must say that it has been entirely trouble free and dependable at all times.

Yours very truly,

Penrose Elevator Co.

*W. B. Zimmerman*  
Mgr.

AGZ

KEWANEE IMPLEMENT CO.,  
1251 Burlington Ave., Kewanee, Ill.

Without obligation I would like blue prints and prices on your truck dumping equipment.

Name .....

Address .....

# HINCKLEY DRIVE

## MODEL 28

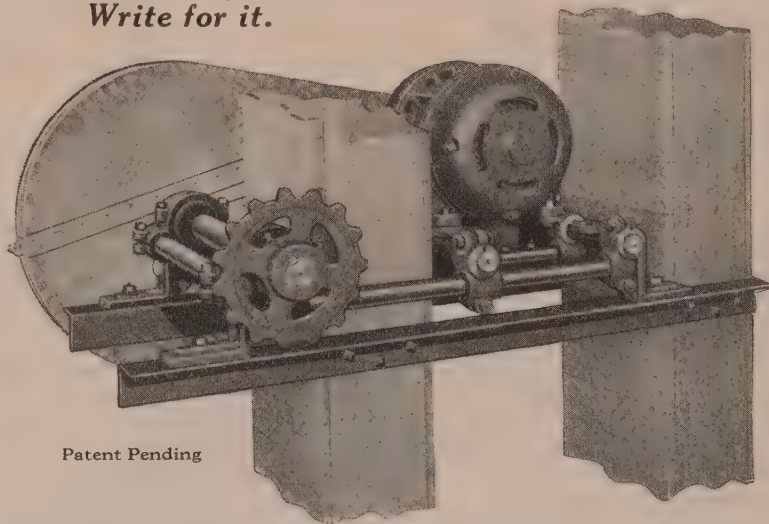
### HYATT EQUIPPED

#### Eliminates:

Worm Gear Heat and Friction  
Fire Hazard from Belts  
Extras in Lumber, Labor, Etc.  
Unequal Weight on Elevator Leg

The only Universal Drive on the market. Immediately adjustable to any motor or leg, either at Head or Boot. A guaranteed speed to your buckets.

*Your copy of the 1928 edition, "Motorize Correctly," is ready for you. Gives the very latest in Antifriction Equipment Hyattized for your economy. Write for it.*



Patent Pending

## LINK BELT SUPPLY CO.

Designers — Manufacturers — Distributors  
MINNEAPOLIS

## Receiving and Stock Book

Form 321 is designed for keeping a record of each kind of grain received at a country elevator in a separate column so that the buyer by adding up columns may quickly determine the number of bushels of each kind of grain on hand. Columns are also provided for date, name, gross, tare, net pounds, price, amount paid and remarks.

The book is printed on Linen Ledger paper, well bound with keratol back and corners. Each of its 160 pages is 9x12 inches, giving room for recording 3200 wagon loads. Weight 2 lbs. 5 oz. Price \$3.00.

Grain Dealers Journal 309 South La Salle St., Chicago, Ill.

## When In Minneapolis Stay At The NEW NICOLLET HOTEL

Opposite Tourist Bureau on  
Washington Avenue  
The Northwest's Finest Hotel.  
600 rooms with bath or  
connecting.  
Every room an outside room.  
Largest and Finest Ballroom  
in Northwest.

#### Rates:

59 Rooms at \$2.00	257 Rooms at \$3.50
68 Rooms at \$2.50	41 Rooms at \$4.00
84 Rooms at \$3.00	38 Rooms at \$5.00
Suites and Special Rooms at \$6.00 to \$9.00.	

#### MAIN DINING ROOM COFFEE SHOP

3 Blocks from both Depots, Retail Center and Wholesale Center.

Under Management  
W. B. Clark

Statement of the Ownership, Management, Circulation, Etc., Required by the Act of Congress of August 24, 1912,

of Grain Dealers Journal, published semi-monthly at Chicago, Ill., for April 1, 1928.

State of Illinois, County of Cook, ss.—Before me, a notary public in and for the state and county aforesaid, personally appeared Charles S. Clark, who having been duly sworn according to law, deposes and says that he is the business manager of the Grain Dealers Journal, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:

Publisher, Grain Dealers Journal, Inc., Chicago, Ill.

Editor, R. R. Rossing, Chicago, Ill.

Managing Editor, Charles S. Clark.

Business Manager, Charles S. Clark, Chicago, Ill.

2. That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.):

Charles S. Clark, 309 South La Salle St., Chicago.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)—None.

4. That the two paragraphs next above giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is ..... (This information is required from daily publications only.)

CHARLES S. CLARK,  
Business Manager.

Sworn to and subscribed before me this 21st day of March, 1928.

(Seal) S. F. UNDERWOOD,  
Notary Public.  
(My commission expires May 10, 1931.)

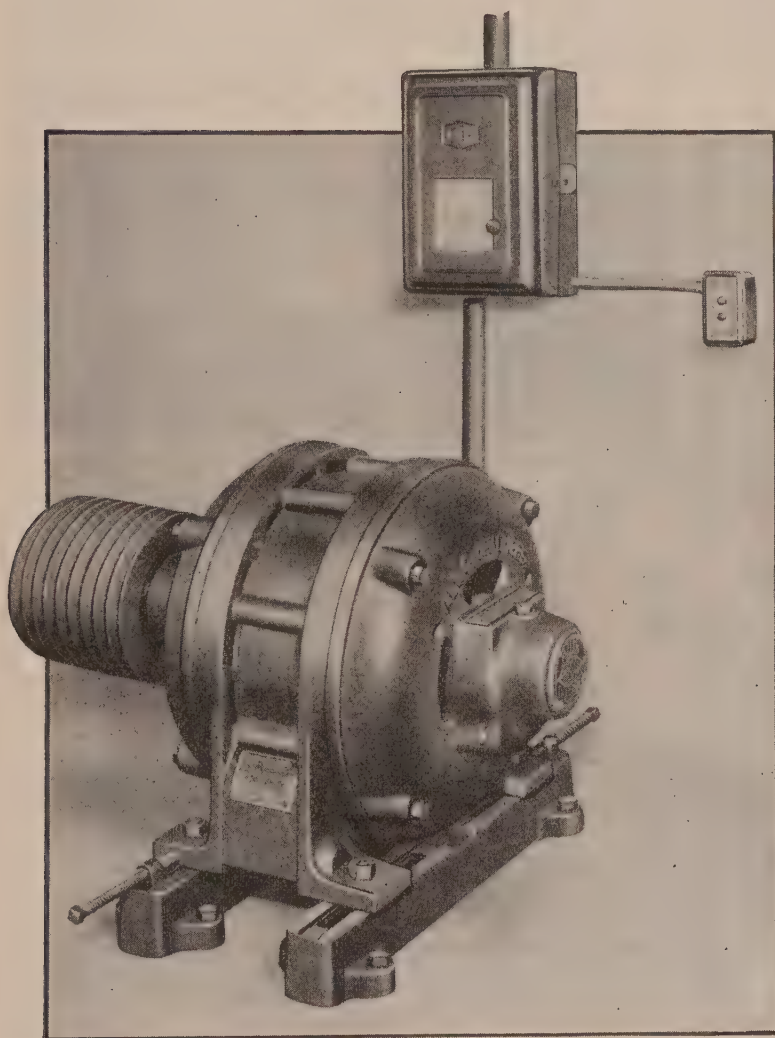
Normal Torque — Type ARX

# Line Start Induction Motors

*Sleeve or Roller Bearing*

*On Full Line Voltage the Starting Current is well within limits recommended by N.E.L.A.*

*The inexpensive Magnetic Switch with Push Button is the only device required for automatic start and stop.*



THE design of these LINE-START MOTORS retains the well known superior features of Allis-Chalmers Induction Motors with the added characteristic for starting on full line voltage and holding the starting current well within the recommended limits of the Electrical Apparatus Committee of the National Electric Light Association.

Frames of electric furnace steel with feet cast integral—silver brazed, indestructible, rotors—form wound coils that are sealed by several treatments in special baking varnish to insure resistance to elements—dust-proof and leak-proof bearings—and a special ventilating system of directional air control insuring equal cooling of all parts, are a few reasons why an ever-increasing number of engineers are insisting on Allis-Chalmers Induction Motors.

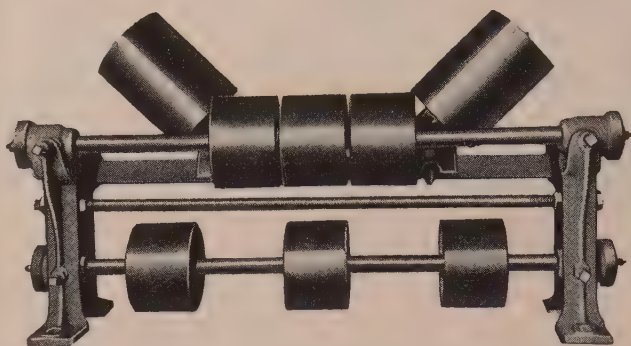
*Line Start Motors are carried in stock in ratings from 7½ to 30 horsepower at all standard speeds.*

WRITE FOR BULLETIN 1143

ALLIS-CHALMERS MFG. CO.  
MILWAUKEE, WIS.



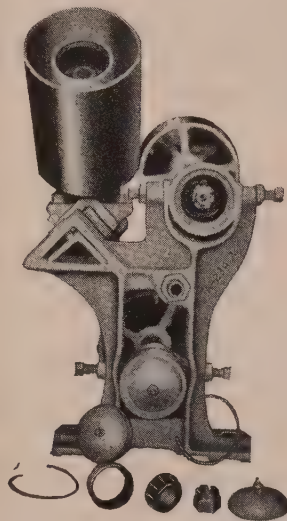
# ALLIS-CHALMERS MOTORS



## CONVEYING EQUIPMENT

Equipped with

## TIMKEN ROLLER BEARINGS



IT IS now possible to secure more efficient conveying equipment. It is manufactured by "Ehrsam" and equipped with Timken roller bearings. This type of conveying

equipment makes for greatly increased economy and efficiency in operation.

## "EHRSAM"

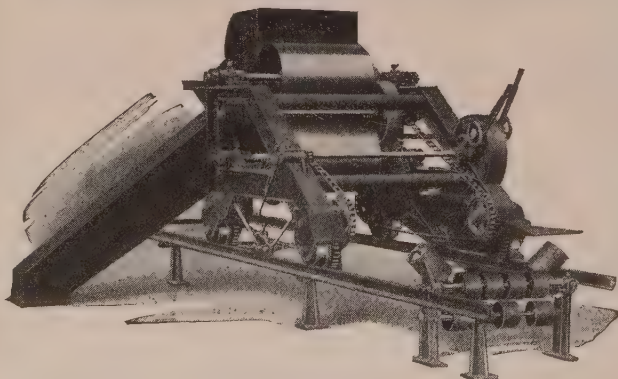
### Grain Handling & Milling Equipment

Ehrsam manufactures a complete line of grain handling and milling equipment. For over fifty years they have pioneered in equipment of this type. This insures complete satisfaction when ordering Ehrsam equipment.

### J. B. Ehrsam & Sons Mfg. Co.

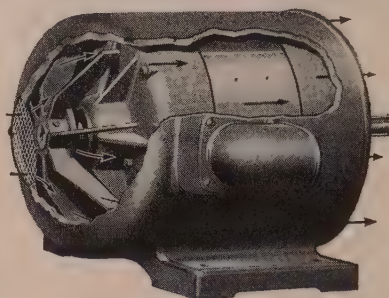
ENTERPRISE, KANSAS

Manufacturers of Machinery for Flour Mills; Grain Elevators; Cement Plaster Mills; Salt Plants; Coal Handling and Rock Crushing Systems; Fertilizer Factories; Power Transmission, Elevating and Conveying Equipment.



The illustration shows the Ehrsam heavy duty self-propelling tripper. Equipped with roller bearings or collar oiling bearings and either worm gear or friction drive. A very efficient machine.

## Enclosed Ventilated Motors



Cut-away View Illustrating Scheme of Ventilation

Reduce Insurance Rates—

Reduce Maintenance Expense—

No Vent Pipes.

Write for bulletin

THE LOUIS ALLIS CO., MILWAUKEE  
OFFICES IN PRINCIPAL CITIES



## The Genuine Humphrey Elevator

Write for money-making information

### Humphrey Elevator Co.

900 Division St.

Faribault, Minn.

*Men do more when they ride instead of climb*

## Too Many Buyers

Read this letter received from  
Cook Bros., Woodward, Iowa.

Grain Dealers Journal, Woodward, Iowa.  
Chicago, Ill.

Gentlemen:—You may take out our two ads as we have received two checks for the mill and closed a deal for a motor, both results from the first issue of your Journal containing our ad.

Yours very truly,  
COOK BROTHERS.

Here are the ads referred to

### MACHINERY FOR SALE

FOR SALE—Three Roll Willford Mill in good condition; \$50.00 buys it. Cook Bros., Woodward, Iowa.

### DYNAMOS AND MOTORS

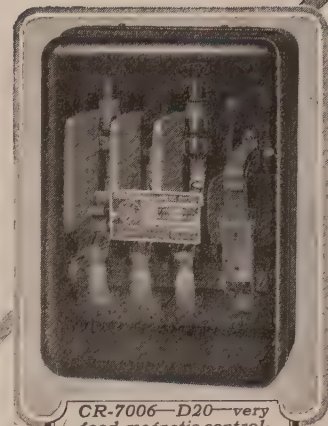
We want a 7 to 10 Horse Direct Current 600 Volt, about 1000 Revolutions per minute, Electric Motor. Write Cook Bros., Woodward, Iowa.

This is only one of many instances where the "WANTED—FOR SALE" columns of the Grain Dealers Journal, Chicago, have proven to grain elevator owners the logical market place for Second-Hand Machinery.

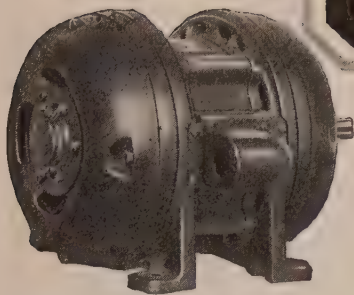
These ads cost but 25c per type line each insertion.



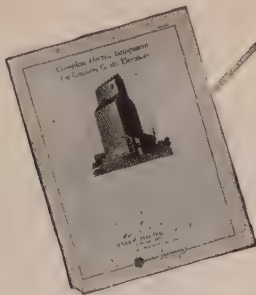
Completely enclosed  
Fan cooled  
No pipes



CR-7006-D20—very good magnetic controller for your air-compressor, cleaner, and head shaft motors.



Ask for booklet GEA-767 entitled: "Complete Electric Equipment for Country Grain Elevators".



## A Safer Motor for your grain elevator

Here is a safer motor than you have previously been able to buy. It is totally enclosed. Two interior fans draw air into the motor, pass it over copper diaphragms (which give up the heat from the windings without letting the air get into the windings) then shoot it out over the exterior of the motor—which prevents dust from settling on it.

This motor requires no pipes. Its light weight will surprise you. Its adjustable base allows easy mounting on floor, wall, or ceiling. Its rotor revolves in heavy-duty, grease-packed ball bearings. Like all G-E products it is unusually reliable. All this means that you can mount it in out-of-the-way places and leave it unattended for long periods.

But the motors are only half the story. Use G-E magnetic control. Place this control in your office or old engine room or in a dust-tight steel cabinet on the work floor. Then operate this control by G-E push buttons mounted on or near the machinery.

Write to your nearest G-E office for booklet and complete information.

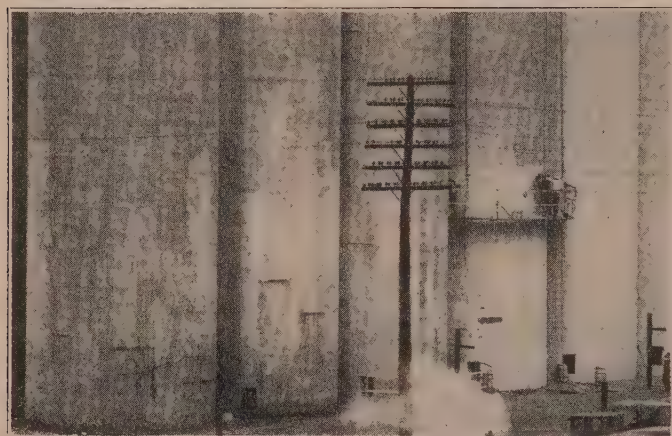
Apply the proper G-E motor and the correct G-E controller to a specific task, following the recommendations of G-E specialists in electric drive, and you have G-E Motorized Power. Built in or otherwise connected to all types of industrial machines, G-E Motorized Power provides lasting assurance that you have purchased the best.



**Motorized Power**  
~fitted to every need

# GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y., SALES OFFICES IN PRINCIPAL CITIES



Showing condition of storage tanks before and after use of my guaranteed process.

**Concrete Elevators  
Chimneys, Exterior Walls  
Railroad Cement Bridge Work**

REPAIRED BY MY

***Guaranteed Process***

Correspondence Solicited

**PETER DROLSHAGEN**

P. O. Box 944

Chicago, Ill.

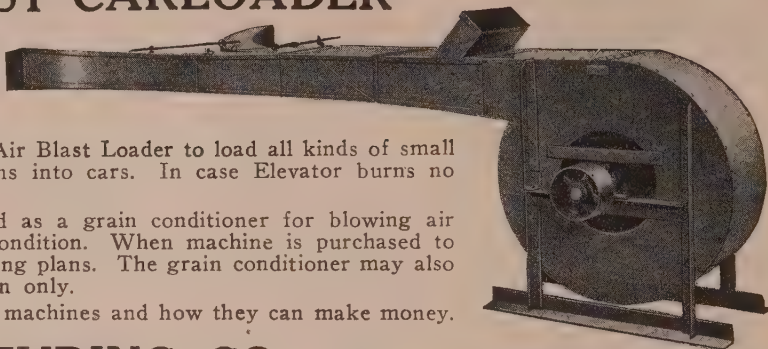
25 years in successful operation. Hundreds of highest class testimonials and satisfied customers

## THE BOSS AIR BLAST CARLOADER

Will load grain cars from your Elevator without scooping in the car, both ends of the car being loaded at the same time. The machine will not injure the grain because it does not pass through the fan. It will clean and raise the grade. We also build Portable Air Blast Loader to load all kinds of small grain, ear corn, cobs, etc., direct from wagons into cars. In case Elevator burns no time is lost.

The Boss Air Blast Loader can also be used as a grain conditioner for blowing air through bins to cool and keep the grain in condition. When machine is purchased to serve this dual purpose we will furnish installing plans. The grain conditioner may also be installed for cooling and conditioning grain only.

Write for illustrated Catalog E. showing these machines and how they can make money.



**MAROA MANUFACTURING CO., Dept. G, Maroa, Illinois**

**“Eureka - Invincible” Grain & Seed Cleaners  
and Feed Manufacturing Equipment**

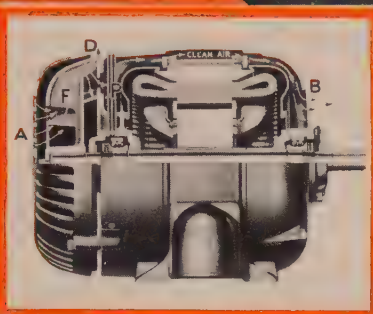
**S. HOWES CO., Inc.**

**INVINCIBLE GRAIN CLEANER CO.  
SILVER CREEK, N.Y.**



**“EUREKA” - “INVINCIBLE” GRAIN CLEANING MACHINERY**

APPROVED  
BY  
MUTUAL FIRE  
PREVENTION  
BUREAU



- A Air inlet at free end of motor.
- F Specially designed fan which functions as an air cleaner.
- D Vent for foreign particles thrown out centrifugally by fan.
- B Clean air flows around winding shield and exhausts at opposite end of motor.
- P Plunger device for greasing ball bearing without removing fan guard or bearing arms.

*Totally enclosed — Self cleaning*  
*No piping required — Ball Bearing*  
*50° continuous rating*

# Self-ventilating!

The first self-cleaning, self-ventilating, totally enclosed, motor ever built! A motor with all the standard Fairbanks-Morse features—dust-defying ball bearings requiring lubrication but once a year; the same sturdy frame and rotor. But now you can have this same motor to put on the dustiest drive in mill or elevator and

forget about a cleaning problem and piping installation.

This new Type "HAC" F-M Motor may be installed with the same speed and

economy of an open-type squirrel-cage motor—yet it is totally enclosed for fire protection. Dust and dirt entering the breather end of this motor are expelled by a specially designed fan before they can reach the ventilating spaces.

This extra convenience and economy are secured without compromise to safety—approved by Mutual Fire Prevention Bureau for minimum insurance rates.

The nearest Fairbanks-Morse office will gladly furnish full information. Prepare yourself for your next motor installation by getting the facts on this motor now.

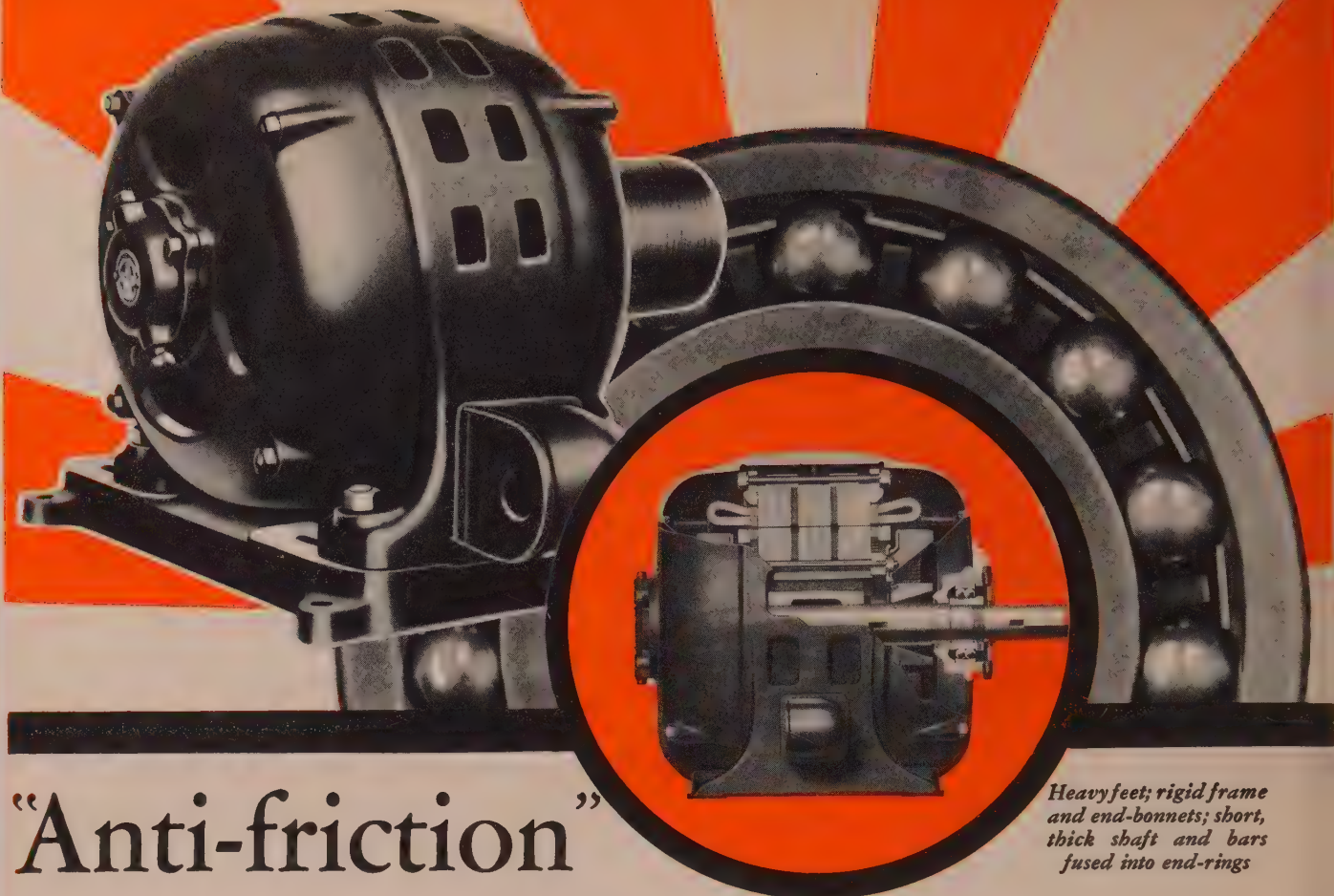
## FAIRBANKS-MORSE MOTORS

*Pioneer Manufacturers of  
ball bearing motors*

**POWER-  
PUMPING  
AND  
WEIGHING  
EQUIPMENT**



FAIRBANKS-MORSE MOTORS



## "Anti-friction"

*Heavy feet; rigid frame and end-bonnets; short, thick shaft and bars fused into end-rings*

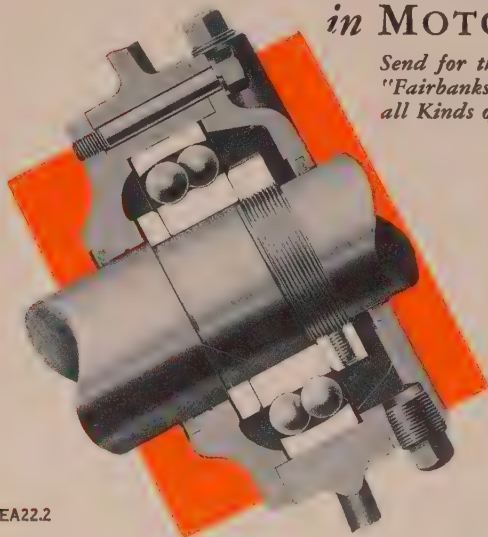
*—the dawn of NEW operating economies*

"More profit through greater operating economy"—the trend of industry everywhere and the only hope of the highly competitive ones.

Can you afford to overlook the annual loss in wasted power and needless maintenance caused by sleeve bearing motors? Can you ignore the operating economies effected with Fairbanks-Morse Ball Bearing Motors?

*If you are really interested  
in MOTORS—*

*Send for the booklet,  
"Fairbanks Motors in  
all Kinds of Service"*



The ball-bearing housings are absolutely sealed from the inside by grease lubricant. Greasing is required but once a year and is further simplified by F-M measured grease tube lubricant. Ball-bearings totally eliminate shaft wear, maintaining a precise air-gap, reducing friction and increasing efficiency.

Less attention to motors! More production from the power bill! Translate these into profits. To secure them call the nearest Fairbanks-Morse office, have them cite the savings these motors are making in the flour industry everywhere.

FAIRBANKS, MORSE & CO., Chicago  
28 branches and service stations in principal cities

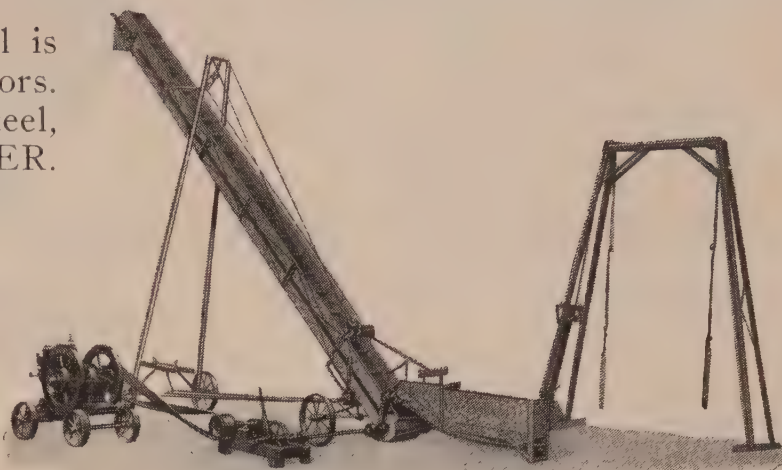
# FAIRBANKS-MORSE MOTORS

# SANDWICH GALVANIZED STEEL ELEVATOR COPPER ALLOY

*The Elevator Double-Armoured Against Rust and Decay*

BETTER QUALITY—LONGER LIFE, AT NO EXTRA COST

Ordinary black sheet steel is unsatisfactory for elevators. We use best open hearth steel, to which is added COPPER. This COPPER-ALLOY Steel fights rust and corrosion. We further treat it with heavy GALVANIZING, insuring much longer life than ever before attained by steel elevators.



We also make the Sandwich Bucket Elevator

**SANDWICH MANUFACTURING COMPANY, Sandwich, Ill.**

Distributing Branches:

Council Bluffs, Iowa  
Kansas City, Mo.

Cedar Rapids, Iowa

## When You Ship Grain, Do YOU Bear the Losses for Leakage, Theft or Errors at Destination?

Many, many times a shipment is reported short for one of the above reasons, and the shipper must stand the loss.

But, with a Richardson Automatic Grain Shipping Scale you are protected against such losses, *because you then know YOUR weights are accurate and right!*

Install a Richardson now and enjoy the protection against shortages.

# RICHARDSON SCALE COMPANY

CLIFTON, NEW JERSEY

Wichita

Boston

Minneapolis

Pittsburgh

New York

Los Angeles

Omaha

Gulfport

Chicago

CHICAGO  
MILWAUKEE  
AND ST. PAUL  
PACIFIC

to  
**Sioux City**  
May 1 and 2  
Make your reservations on  
**"The Arrow"**

The Official Train to the 28th Annual Meeting of the Western Grain Dealers' Ass'n

*Special reduced rate of fare and one-half*

Provides every desired travel convenience: Observation Club Car, Standard Sleeping Cars and Dining Car.

The Standard Sleeping Cars are modern in every respect, with large roomy berths, drawing room and compartment.

**Information—Tickets—Reservations**

New City Ticket Office, 50 S. Clark St., Chicago.  
B. J. Schilling, Gen'l Agt., Pass. Dep't.

**The MILWAUKEE**  
Road

**LARVACIDE**  
CHLORPICRIN

**A 100% Exterminator**

The Safe Fumigant for  
Grain Elevators--Seed Warehouses  
Flour Mills--Private Residences

Non-Inflammable  
Non-Explosive

Sanctioned by Mutual Fire Prevention Bureau

Information Including Technical Papers on Request

**INNIS, SPEIDEN & CO.**  
INCORPORATED  
46 CLIFF STREET, NEW YORK.

Selling Agents for ISCO CHEMICAL CO.

Authorized Distributors Who Intelligently  
Handle Your Problems

Furniture Fumigation Co., 538 W. Pershing Rd., Chicago, Ill.  
Twin City Exterminating Co.,  
2399 University Ave., W., St. Paul, Minn.  
Safe-Way Exterminating Co., 429 Franklin St., Detroit, Mich.  
Twin Ports Exterminating Co., 1911 23d St., Superior, Wis.  
Bode Furniture Fumigation Co.,  
2191 Western Ave., Cincinnati, O.

Territories are open for active responsible distributors



**DAY**  
**Dust Collectors**

have been standard equipment in better grain elevators for over forty years.

*There's a Reason*

**The Day Company**  
Dust Collecting Engineers

1023-5 Lyndale Ave., N. Minneapolis, Minn.



**The Atlas Car Mover**

*The Car Mover With Power*

When you put an Atlas under the wheels of a car there is never a question about moving it.

**Compound Action Fully Guaranteed**

**The Best Car Mover on Earth**

**APPLETON CAR MOVER COMPANY**

Appleton, Wisconsin

**Do Not Take Chances**

on verbal contracts for future delivery of the grain you are now purchasing. Mr. Farmer is very liable to forget them if the market should advance or his crop be a failure. Our Duplicating Grain Contracts will save you time, worry and money and should be used on every purchase.

They certify the Farmer "has sold ..... Bushels of ..... at ..... cents per bushel, to grade No. .... to be delivered at ..... on or before .....". They also certify that "If inferior grain is delivered, the market difference at which such grain is selling on day of delivery shall be deducted."

Put up in books of 100 sets. Originals of bond paper are machine perforated so they may be easily torn out, while the manila duplicate remains firmly bound in the book. Both sheets contain a printed form on the back for entering each load delivered on the contract. Check bound with 3 sheets of carbon. Order FORM 10 DC, Price \$1.15. Weight 1 lb.

Triplicating book is same as 10 DC and contains 100 additional copies of the contract printed on strong tissue and 4 sheets of dual faced carbon. Order Form 10 TC. Price \$1.40. Weight, 21 ozs.

**Grain Dealers Journal**

309 South La Salle St.

Chicago, Ill.

# Save on your Power Costs

## HYATT

### ROLLER BEARINGS

## will turn the trick

*require less oil*  
**THEY...***reduce fire risk*  
*prevent shut-downs*

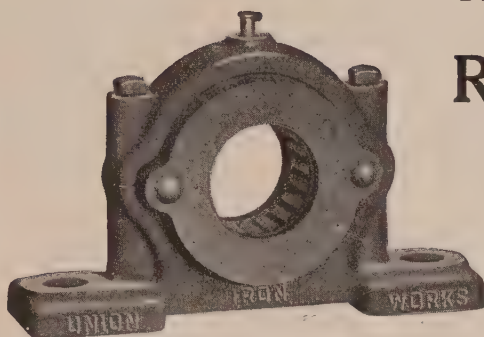
### Roller Bearing Pillow Blocks

with

#### Hardened Steel Inner Sleeves

#### ROLLER BEARING

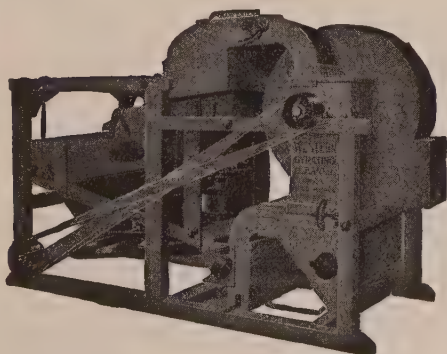
#### —SHELLERS AND CLEANERS—



SELF ALIGNING  
HYATT  
ROLLER BEARING PILLOW BLOCK



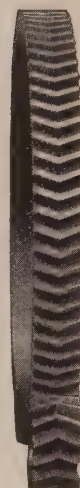
WESTERN PITLESS SHELLE  
HAVE  
HYATT ROLLER BEARINGS



WESTERN GYRATING CLEANER  
HAVE  
HYATT ROLLER BEARINGS

#### HERRINGBONE GEARS

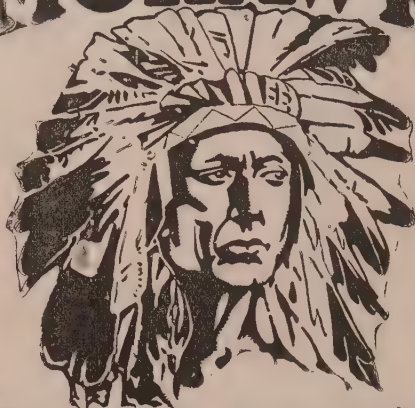
1. Their action is continuous and smooth because there are no shocks when the load is transmitted from tooth to tooth. The two teeth always having two points of contact in the plane of axis.
2. Relatively greater strength because of the double angle tooth formation and distribution of load over full width of tooth.
3. Back lash and vibration practically eliminated.
4. Transmission of great power through comparatively small gears.
5. Space conservation by elimination of several gear reductions.
6. Longer life because of reduced friction vibration and shocks.
7. Less power consumption.
8. They cost very little more than spur gears.



Replace your plain spur gears with herringbone gears. Write us for full particulars. You will be pleasantly surprised.

## UNION IRON WORKS

DECATUR, ILLINOIS

**MOHAWK****RUBBER BELTING**

For many years the **Standard Belting** for elevators. Specify this belting when contracting to build or remodel. Demand it when ordering direct.

**Hewitt-Gutta Percha Rubber Corporation**

A Consolidation of the

Hewitt Rubber Company

and

The Gutta Percha & Rubber Mfg. Co.

Executive Offices and Factory at Buffalo, N. Y.

**BRANCHES**

Chicago  
Pittsburgh  
Denver

New York  
Boston  
Philadelphia

Salt Lake City  
El Paso  
Los Angeles

## Improved Duplicating Grain Tickets

With the use of Form 19GT as a scale book much time and labor will be saved as one writing with the use of carbon will give you a complete record and a ticket for the hauler. Chance of error will be minimized as both the ticket and office record will be the same.

This book contains 250 leaves. Each of the 125 original leaves bears four scale tickets, is machine perforated, printed on white bond, size of tickets 3x6 $\frac{3}{4}$  inches. The 125 duplicates are printed on manila but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Size of book 7 $\frac{1}{2}$ x12 inches, each book supplied with 5 sheets of carbon.

The printing is crosswise ticket and has spaces for the following record: "Owner, Hauler, Grain, Grade and Dockage, Gross, Tare, Net, Total Dockage, Net Pounds, Bushels, Price and Amount, Storage Ticket No., Station Ticket No., and Date, Weigher, Name of Firm or Buyer."

Form 19GT Duplicating (250 pages) \$1.50

Form 19GT Triplicating (375 pages) 2.00

**Grain Dealers Journal**

309 So. La Salle St.

Chicago, Ill.

## GRAIN ELEVATOR BUILDERS

**JAS. H. BROWN CO.**

621 South 3rd Street

CONCRETE ELEVATORS

MILLS

Minneapolis, Minn.

WAREHOUSES

**L. J. McMILLIN**

Engineer and Contractor of

**GRAIN ELEVATORS**

Any Size or Capacity

523 Board of Trade Bldg., Indianapolis, Ind.

GRAIN and COAL ELEVATORS

**T. E. IBBERTSON CO.**

CONTRACTING ENGINEERS  
MINNEAPOLIS, MINN.

**McKENZIE CONSTRUCTION COMPANY**

Engineers

Contractors

GRAIN ELEVATORS

COAL POCKETS

Metropolitan Life Bldg.

Minneapolis, Minn.

**The Star Engineering Company**

Specialists In

**Grain Elevator Construction**

Our elevators stand every test  
Appearance, Strength, Durability  
and Economy of Operation

Estimates and information promptly furnished

**Wichita, Kansas**

**CRAMER BUILT**

elevators have won the confidence of discriminating grain dealers for long and economical service.

**W. H. CRAMER  
CONSTRUCTION CO.**

North Platte, Nebr.

Plans and Specifications Furnished

**Elevators, Mills, Warehouses**

Designed, Built, Repaired

Estimates Cheerfully Furnished

**HOGENSON CONSTRUCTION CO.**

Corn Exchange

Minneapolis, Minn.

It is our wish to continue subscribing to your Journal, which contains very interesting and valuable information, so kindly let us know whether our money order has been received.—E. R. Pottor, Mgr. Wheat & Jute Dept., The South Australian Farmers Co-operative Union, Ltd., Adelaide, South Australia.

## GRAIN ELEVATOR BUILDERS

### RELIANCE Construction Co.

Board of Trade, Indianapolis

Designers and Constructors  
of the better class of grain elevators  
—concrete or wood

### Younglove Construction Company

Grain Elevators, Transfer Houses,  
Coal Pockets, Feed Plants  
Wood or Fireproof Construction

*"If Better Elevators are Built  
They will STILL be Youngloves"*

SPECIALIZING  
Concrete Pits that ARE Waterproof

418 Iowa Bldg.,  
Sioux City, Iowa

Box 1172  
Fargo, N. Dak.

## THE VALUE

### OF AN ADVERTISEMENT

Depends upon placing it before the  
right persons. You can get your adver-  
tisements before the grain dealers of the  
country by using this space.



Patented

Folwell-Sinks Form Lifting

### Jacks and Steel Yokes

for Grain Elevator, Silo  
and Coal Pit Construction

Write for literature and prices

Manufactured and Sold by

**NELSON MACHINE CO.**

WAUKEGAN, ILL.

### A. F. ROBERTS ERECTS FURNISHES

SABETHA,

Elevators  
Corn Mills  
Warehouses  
Plans  
Estimates  
Machinery

KANSAS

L. D. Rosenbauer, Pres. L. W. Ledgerwood, Sec.  
H. P. Roberts, V. Pres. A. E. Owens, Supt. Cons.

### Southwestern Engineering Company

Designers and Builders

Modern Mills, Elevators  
and Industrial Plants  
SPRINGFIELD, MO.

## DESIGNERS

of Grain Elevators, Flour Mills  
Feed Mills, Warehouses  
and Industrial Buildings

**HORNER and WYATT**

Board of Trade Bldg. Kansas City, Mo.

*It Pays to Plan Before You Build*

The Grain Dealers Journal is a first-  
class publication.—Albert W. Orr, Kansas  
City, Mo.

C. T. Stevens

C. E. Roop

C. B. Barutio

**Stevens Engineering & Construction Co., Incorporated**  
Designers and Builders—GRAIN ELEVATORS—WAREHOUSES—FLOUR and FEED MILLS  
1207-8-9 LANDRETH BUILDING ST. LOUIS, MISSOURI

### Weller Metal Pdts. Co.

Chicago Office Factory  
505 Webster Bldg. Hammond, Ind.  
**SHEET METAL WORK**  
Grain Elevators a Specialty

### E. H. CRAMER

Hampton, Nebraska  
Designer and Builder of  
Grain Elevators

## HICKOK Construction Co. MINNEAPOLIS ELEVATORS

### BIRCHARD Construction Co.

Architects and Contractors  
Grain Elevators—Mills  
B. SAMPSON Lincoln, Nebr.

### Geo. W. Quick & Sons

Tiskilwa, - - - Illinois  
Designers and Builders  
Concrete Grain Elevators  
Waterproof Pits a Specialty



Use White Star Special Cups, made and shipped  
only from the White Star Factory. *Accept no  
substitutes.* These cups are hand riveted;  
they stand up and their capacity is guaranteed.

Our Special Boot is the only non-chokable ball-  
bearing boot on the market, to the best of our  
knowledge.



One of  
**Several Elevators**  
 Designed and Built by us Throughout Canada

The More Recent are

The Reliance Terminal Elevator	Port Arthur
The Jas. Richardson & Sons Elev.	Port Arthur
The Northwestern Elevator	Fort William
The Great Lakes Elevator	Owen Sound

**THE BARNETT-McQUEEN  
 CONSTN. CO., LIMITED**

*Designers and Builders of Grain Elevators*

Fort William, Ont.

Duluth

Minneapolis, Minn.

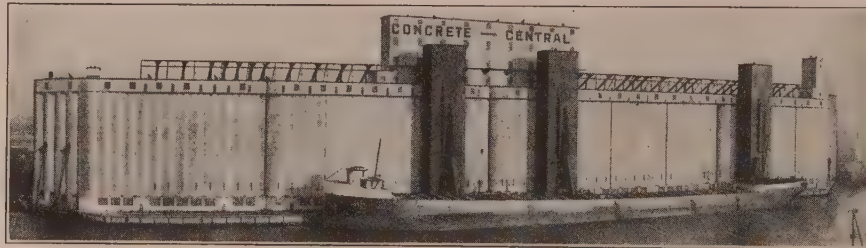


**FOLWELL-AHLKOG COMPANY**  
 Engineers and Constructors

323 North Michigan Avenue  
 CHICAGO, ILLINOIS, U. S. A.

3,000,000 Bushel Concrete Grain Elevator  
 Designed and Built for  
 A. E. Staley Mfg. Co., Decatur, Ill.

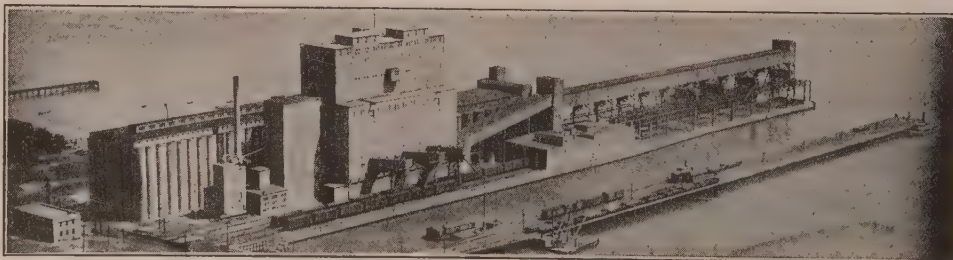
Operated by  
 The Eastern Grain,  
 Mill and Elevator  
 Corporation



Concrete-Central  
 Elevator, Buffalo,  
 N. Y.  
 Capacity  
 4,500,000 Bushels

Designed and Built by  
**Monarch Engineering Company**  
 Buffalo, N. Y.

Capacity  
 5,000,000  
 Bushels



PENNSYLVANIA RAILROAD ELEVATOR AT BALTIMORE

Equipped with  
 Four Stewart  
 Link-Belt  
 Grain Car  
 Unloaders

**JAMES STEWART CORPORATION**  
 ENGINEERS AND CONTRACTORS

W. R. SINKS,  
 PRESIDENT

FISHER BUILDING—343 S. DEARBORN ST  
 CHICAGO, ILLINOIS

THOMAS D. BUDD,  
 VICE PRESIDENT



The Baltimore & Ohio R. R. Co.'s  
Baltimore, Md.

## Terminal Grain Elevator

Capacity 3,800,000 Bushels

*The Most Rapid Grain Handling  
Plant in the World*

Constructed by

THE M. A. LONG CO.

*Engineers and Constructors*

Grain Elevator Department

The Long Bldg. - Baltimore, Md.  
Postal Tel. Bldg. - Chicago, Ill.

## FEGLES CONSTRUCTION CO., Ltd.

*Engineers — Constructors*

Fort William, Ont.

Minneapolis, Minn.



N. M. Paterson Co., Ltd. 2,500,000 Bu. Elevator Fort William, Ont.

DESIGNED for the years  
ahead—an advance we propose  
to maintain.



## Santa Fe Elevator "A"

Kansas City, Kans.

Capacity  
6,500,000 Bushels

## John S. Metcalf Co.

*Grain Elevator Engineers and Constructors*

111 W. Jackson Blvd., Chicago 434 St. Francois Xavier St., Montreal 837 W. Hastings St., Vancouver, B. C.  
33 Henrietta Street, Strand, London, England



## Enid Terminal Elevator Co.

Enid, Oklahoma

Capacity, 1,100,000 bushels

An exact duplicate of this elevator was  
also designed and built by us for

Southwest Elevator Co., Enid, Okla.

## Jones-Hettelsater Construction Co.

*Grain Elevators—Flour and Feed Mills*

708-9 Mutual Building

Kansas City, Mo.

# Wanted and For Sale

The rate for advertisements in this department is 25 cents per type line each insertion

## ELEVATORS FOR SALE.

**ILLINOIS**—30,000 bu. elevator at Block, Ill., on the C. & E. I. R. R. Price \$6,000.00 cash. Address A. G. Cole, Sidney, Ill.

**FAULKNER, IOWA**—20,000 bu. farmers elevator and modern residence for sale, located in good farming territory. All buildings in good condition. Can give possession Sept. 1, 1928. Frank J. Hayes, R. 1, Ackley, Iowa.

**NEBRASKA**—\$5,000 bu. terminal elevator in Eastern Nebraska; concrete cylindrical tank construction; electrically equipped; modern throughout. No incumbrances—terms. Address 60D12, Grain Dealers Journal, Chicago, Ill.

**IF YOU DO NOT** find the elevator you want advertised, place your wants in the "Elevators Wanted" section and you will receive full particulars regarding many desirable properties not yet advertised.

**N. E. SOUTH DAKOTA**—Elevator, flour and coal sheds. Best location, good territory. Also modern six-room residence, full basement, enclosed porch, trees. Price \$11,500, if taken soon. Address A. Hendrickson, Veblen, S. D.

**KANSAS & MISSOURI**—Two modern elevators, N. E. Kansas and N. W. Missouri; good one for cash and can offer one in exchange for land, same territory. Address 60H7, Grain Dealers Journal, Chicago, Ill.

**MONTANA**—25,000 bu. cribbed elevator, feed mill, coal sheds, warehouse. Good location, in heart of million dollar irrigation project. "A location with a future." Write for particulars. Kyle Jones, Bynum, Montana.

**KANSAS**—50,000 bu. elevator, warehouse, feed mills, and coal business for sale at Dodge City, Kansas; a splendid growing business located in heart of wheat, and small grain territory. Poor health reason for selling. Rhinehart Bros., Dodge City, Kansas.

**CENTRAL ILLINOIS**—Modern 40,000 bu. capacity elevator and 25,000 bu. capacity crib and small grain combined. Also tenant house, office, scales, etc. On leased ground. Priced to sell. Possession at once. Write 59Z6, Grain Dealers Journal, Chicago, Ill.

**INDIANA**—Two elevators, 50,000 bushels capacity, and 100 barrel mill; modernly equipped; 6,000 bushel grain drier. One owner wishes to retire, other to buy another elevator. Can show net profits up to \$15,000 a year. Price \$40,000, one-half cash. Address J. M. Walker & Son, Middletown, Ind.

**KANSAS** Elevator practically sold after three insertions. Here's what the advertiser writes: "We enclose check for three insertions of our ad. We have had more than a dozen inquiries from our ad and believe that we will be able to effect a sale." This proves conclusively the value of a Journal Want-Ad.

**ILLINOIS**—22,000 bu. cribbed, iron clad elevator and feed mill for sale; located in town of 3,000 in excellent grain territory, on hard road, C. R. I. & P. Ry. All bins hoppers; 7x12 in. cups; 10 hp. electric motor; Fairbanks scale; Sprout, Waldron 60 hp. attrition mill. Doing fine business. For price and terms write to G. H. Allen, Mail Bldg., Galesburg, Ill.

## ELEVATORS FOR SALE.

**MINNESOTA**—40,000 bu. elevator, seed house and residence for sale. Only elevator in town. If interested, write M. S. Anderson Independent Elevator, Henning, Minn., for particulars.

**OHIO**—15,000 bu. cribbed elevator, nearly new, electrically equipped and modern throughout; in good wheat section. Address 60G11, Grain Dealers Journal, Chicago, Ill.

**KANSAS**—Three good elevators, all within distance of 20 miles, on main line road in Western Kansas wheat territory. Address 60F3, Grain Dealers Journal, Chicago, Ill.

**CENTRAL ILLINOIS**—20,000 bu. cribbed elevator in excellent condition, doing good business. \$8,000 if taken quickly, good terms. Address 59W22, Grain Dealers Journal, Chicago, Ill.

**CHOOSE YOUR ELEVATOR** from the many offered. Insert an advertisement in the "Elevators Wanted" column of the Grain Dealers Journal, and select one at a satisfactory price and station.

**SOUTHEAST ALABAMA**—Modern 12,000 bu. grain elevator, grist mill, chop mill and feed mill. Good live business, no competition, located on A. C. L. R.R. Also modern residence and two acres of ground adjoining elevator. Address 60F14, Grain Dealers Journal, Chicago.

**ILLINOIS**—Elevator, lumber and coal business in N. Illinois village; rich territory; buildings and equipment in good shape and reasonably priced. Big earnings in 1927 and business prosperous and going fine; successful manager can continue. Holcomb-Dutton Lumber Co., Sycamore, Ill.

## FOR SALE AT ALPHA, MINN.

All of our elevator properties, consisting of two elevators, coal sheds, salt house, flour house, corn crib and offices together with office equipment used in connection. Priced to sell. Address Farmers Co-op. Society, John Waswo, Sec'y, Alpha, Minn.

## ELEVATOR FOR SALE OR RENT

**EAST CENTRAL ILLINOIS**—35,000 bu. well equipped grain elevator; one other privately owned elevator at station. Annual business of station about 500,000 bushels. Address 59P9 Grain Dealers Journal, Chicago, Illinois.

## ELEVATOR FOR SALE OR LEASE

**OHIO**—10,000 bushel capacity, electric power. Selling on account of sickness. Write H. Townsend, North Lewisburg, Ohio.

## SAMPLE ENVELOPES

**SAMPLE ENVELOPES—SPEAR SAFETY**—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable, size 4½x7 inches. Have a limited supply to sell at \$2.60 per hundred or in lots of 500, \$2.30 per hundred f. o. b. Chicago. Sample mailed on request. Grain Dealers Journal, 309 S. LaSalle St., Chicago, Ill.

## ELEVATORS WANTED

**HAVE A FARM** of 240 acres in Mitchell Co., Iowa, highly improved, as good a farm as you will find in the state. Want to trade for a grain business in Iowa or Illinois. Address 60E12, Grain Dealers Journal, Chicago, Ill.

**WANT TO LEASE** an elevator in north central Illinois or Iowa. Station must handle a good volume of business. Have had 30 years' experience in the grain business. Address 60E11, Grain Dealers Journal, Chicago, Ill.

**ELEVATOR WANTED** in Kansas, Missouri or Nebraska. Will exchange property in Lawrence, Kansas, or farm in Southern Kansas or both for good elevator handling volume of grain, or will exchange irrigated land in Rio Grande Valley near Weslaco, Texas. Address G. G. Wiechen, General Delivery, Weslaco, Texas.

**STOP! READ! THINK!** This advertiser writes: "Your service brought me 24 replies." We can do the same for you. Don't wait, write NOW.

## ELEVATOR BROKERS.

**ALWAYS HAVE ELEVATORS** for sale. To save time, please state amount you wish to invest and location you prefer. James M. Maguire, 6440 Minerva Ave., Chicago, Ill.

## YOU MAY BE MISSING SOMETHING.

**AN ILLINOIS** elevator company running a 3 line ad in one issue says: "We had 25 applications from that ad. Thank you."

## MILLS FOR SALE.

### MILLING IN TRANSIT FEED MILL

Storage for 65,000 bus. bulk grain; 21,800 sq. ft. warehouse room; all machinery for feed; no flour milled. Main line Erie R. R., private switch with track scale, best of service. Big chance to buy this plant very cheap, on easy terms. Address Empire Mills, Olean, N. Y.

**COMPETENT AND EXPERIENCED** elevator managers, foremen, bookkeepers, auditors, second men and solicitors can easily and quickly be found through an ad in the "Help Wanted" columns of the Grain Dealers Journal, Chicago, Ill.

## BUSINESS OPPORTUNITIES.

**FOR SALE**—Good live feed and seed business in good town and excellent farming district. Box 223, Port Huron, Michigan.

**FOR SALE OR TRADE**—Best switch property in city and fine warehouse centrally located in Joplin, Mo. Address 60F15, Grain Dealers Journal, Chicago, Ill.

**NORTH CENTRAL ILLINOIS**—Excellent coal and feed business located in heart of dairy district. Address 60E8, Grain Dealers Journal, Chicago, Ill.

**KENTUCKY**—Large modern feed plant for sale, five story and basement, brick and concrete mill building and concrete elevator 125,000 bu. adjoining—also other warehouses—a complete plant—splendid location, advantageous transit and reshipping privileges. Best of reason for selling. Blue Grass-Elmendorf Grain Corp., Lexington, Ky.

## HELP WANTED.

**WANTED**—Manager for large Central Ill. ear corn station. No competition but must produce results; good town; give experience and references first letter. Address 60H9, Grain Dealers Journal, Chicago, Ill.

## SITUATION WANTED.

**POSITION WANTED** as manager of elevator. Experienced. A-1 references. Address 60G7, Grain Dealers Journal, Chicago, Ill.

**WANTED**—Position as elevator operator; seven years' experience; best of references. Address Frank Hill, Jr., 58 W. Dayton St., West Alexandria, Ohio.

**SUPERINTENDENT** of large terminal elevator for the past 15 years is now open for position. Best of references. Address 60G2, Grain Dealers Journal, Chicago, Ill.

**POSITION WANTED** as manager of farmers' elevator; have had six years' experience as assistant. Good references. Address 60E1, Grain Dealers Journal, Chicago, Ill.

**POSITION WANTED** by man with over 25 years' experience in large terminal elevators of the Middle West. Good millwright, foreman or superintendent. Address 60G1, Grain Dealers Journal, Chicago, Ill.

**YOUNG MAN WANTS** position in grain elevator as mgr. or asst. Thorough knowledge grain, coal, seed, feed business, have bookkeeping experience. References furnished. 60G12, Grain Dealers Journal, Chicago.

## SCALES WANTED.

**RICHARDSON AUTOMATIC SCALES** bought and sold. Address 60C18, Grain Dealers Journal, Chicago, Ill.

**WANTED**—Richardson Automatic grain and bag portable scales. State capacity, how long used and lowest price. Morse Engineering Co., Kansas City, Mo.

## SCALES FOR SALE.

**FOR SALE**—Fairbanks carload track scales, in good condition, almost as good as new; type registering beam under cover; a bargain. Address M. O. Koesling, Osborne, Kansas.

**RICHARDSON Automatic Scales**, 4 to 8 bu. capacity, for sale; fine condition. Also R. R. track scales. Address Standard Mill Supply Co., 501 Waldheim Bldg., Kansas City, Mo.

**FOR SALE**—Four 1600-bu. Fairbanks-Morse hopper scales; type register beam. These scales were installed in 1922 by the Santa Fe Railroad in an elevator, which has been dismantled. If you are in the market, you will save money. J. Goldberg & Sons, Inc., 7500 Independence Ave., Kansas City, Mo.

## ENGINES FOR SALE

**FOR SALE**—One 15 hp. Fairbanks-Morse Type "Y" oil engine, in good condition. Minton Creamery, Harper, Kansas.

**FOR SALE**—Fairbanks-Morse Type "Y" 20 hp. oil engine. In use and in good condition. Levasy Elevator Co., Levasy, Mo.

## INFORMATION BURO.

**READERS DESIRING** to learn by whom or where any grain handling machine or device is made can generally obtain it promptly by addressing Information Buro, Grain Dealers Journal, Chicago, Ill.

**THE WANTED-FOR SALE DEPARTMENT** of the Grain Dealers Journal is a market place where buyer and seller, employer and employee, and those offering investments can meet to their mutual advantage and profit and it will pay every subscriber to give these columns a close study twice each month, because of the constantly changing variety of opportunities seeking your consideration.

## ENGINE WANTED.

**WANTED**—Second-hand gasoline engines. State make and size. Louis Graff, Minier, Ill.

**WANTED**—40 to 50 h.p. gas or oil engine. Address 60H8, Grain Dealers Journal, Chicago.

**WANTED**—A good second-hand Fairbanks-Morse Type "Y" 25 hp oil engine. Must be in good condition. A. P. Bump, Keensburg, Ill.

**WANTED**—Second-hand oil engine, preferably Type "Y" 25 to 50 hp. Fairbanks-Morse. Rileysburg Grain Co., Rileysburg, Ind.

## WANTED

40 hp. steam engine, either center or left hand side crank. Must be in good condition. Brocton Elevator Co., Brocton, Ill.

## WANT ADS WORK WONDERS.

They sell elevators, find help and partners, secure machines and engines which you want, sell those for which you have no further use, and perform a myriad of kindred services for shrewd people who use them regularly. READ and USE THEM.

## Bargain Sale in Soiled and Shelf Worn Books.

Duplicating Grain Ticket Book, cover slightly damaged. Price 75c and postage. Order "Special 19GT."

Grain Shipping Ledger gives complete information therefrom. 1 copy soiled—printer's sample. Price \$2.00 f. o. b. Chicago. Order "Special 24."

One Grain Receiving Ledger, Form No. 43, fitted with a strongly reinforced index for listing accounts. Gives instant access to individual accounts of farmer patrons as each page is numbered. Will hold 8,800 listings of wagon loads. Price, \$1.75 and postage. Order No. 43 Special.

One Clark's Decimal Wheat Values reduces any weight from 10 to 100,000 pounds to bushels of 60 lbs. and show the value at any price from 50c to \$2.39. These tables have the widest range of quality and price, are so compact and so convenient no Wheat Handler can afford to attempt to do business without them. Printed on linen ledger paper, 40 pages, size 9x11½ inches. Shipping weight 1 lb. The soiled copy will be sold for \$1.50 plus postage and insurance. Order 33X, Special.

All prices are f. o. b. Chicago.

GRAIN DEALERS JOURNAL,

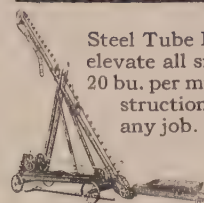
309 So LaSalle St., Chicago, Ill.

## Cover's Dust Protector

Rubber Protector, \$2.00  
Sent postpaid on receipt of price; or on trial to responsible parties. Has automatic valve and fine sponge  
**H. S. COVER**  
Box 404 South Bend, Ind.



## LITTLE GIANT ELEVATORS



Steel Tube Portable Elevators, elevate all small grains, 18 to 20 bu. per minute. Superior construction features, fit it for any job. Easily transported.

Catalog shows different types

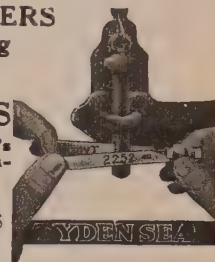
Portable Elevator Mfg. Co.  
276 Mc Munn St. Bloomington, Ill.

## 10,000 SHIPPERS Are now using

## TYDEN CAR SEALS

Bearing shipper's name and consecutive numbers.

Prevent  
CLAIM LOSSES  
Write for samples and prices



INTERNATIONAL SEAL & LOCK CO.

617 Railway Exchange Bldg., Chicago, Ill.

## WHY-A-LEAK —STOP IT—

## BAD ORDER CARS

cause the loss of many hard earned dollars to shippers of grain and seed.

**MUCH OF THIS LOSS** can be saved by the use of Kennedy Car Liners. These car liners practically condition a bad order car and enable shippers to load cars that otherwise would be rejected.

**KENNEDY SYSTEM** of car liners prevents leakage in transit and are made for all cases of bad order cars, consisting of full Standard Liners, End Liners and Door Liners.

**WILL YOU NOT** give us an opportunity to submit full details of our system and the low cost for this protection? We are confident this would demonstrate to you the efficiency and money saving merits of our car liners.

## THE KENNEDY CAR LINER & BAG COMPANY

SHELBYVILLE, IND.

Canadian Factory at Woodstock, Ontario

## KEEP POSTED

## GRAIN DEALERS JOURNAL

309 So. La Salle St., Chicago, Ill.

Gentlemen:—In order to keep us posted regarding what is going on in the grain trade outside our office, please send us the *Grain Dealers Journal* on the 10th and 25th of each month. Enclosed find Two Dollars for one year.

Name of Firm .....

Capacity of Elevator .....

Post Office .....

State .....

## MACHINES FOR SALE.

**FOR SALE**—One 60 ft. elevator leg complete, boot, trp. shaft, pulley's belt, buckets 4½x7. Cheap. W. E. Riley, Montpelier, Ohio.

**FOR SALE**—25 hp. type "NB" Fairbanks-Morse oil engine; 6 ton Fairbanks wagon scale; 33 feet of 12 inch 5 ply rubber belt; 10 belt pulleys from 60 inches down. Farmers Milling & Supply Co., Honey Creek, Ind.

**FOR SALE**—One Barnard & Leas 100 bbl. sifter, practically new. Priced right. Address Hagerstown Grain Co., Hagerstown, Ind.

## SAVE POWER—REDUCE FIRE RISK

By installing Used or New Ball or Roller Bearing Hangers and Pillow Blocks at very low prices. Transmission Machinery Co., Chicago, Ill.

## FOR QUICK SALE.

Motor and belt driven single and double head attrition mills, slightly used, fully guaranteed. Wire, phone or write for extremely attractive prices. DIAMOND HULLER CO., Winona, Minn.

**FOR SALE**—Clipper cleaner with traveling brushes; elevator buckets 4" to 6" projection, 6" to 12" on the belt; some belting and pulleys; 3 Fairbanks-Morse grain testers. All the above in good condition. H. D. Eyreringham, Fort Madison, Iowa.

## USED MACHINERY FOR SALE.

One Williams No. 5 Roller Knife Shredder; one No. 1 Jay Bee Grinder; one 30" Bauer Belt Driven Attrition Mill; one 30" Cogswell Double Pulley Attrition Mill. Send for new list of crushing and grinding machinery.

CONSOLIDATED PRODUCTS CO., INC.,  
14-17 Park Row New York City

## NEW AND USED MACHINERY FOR SALE

Two 22-in. double head Bauer ball bearing, motor driven, Attrition Mills; 1 three pair high 9x18 Allis Feed Mill, in excellent condition; 1 Hess corn and grain drier, new, never has been set up, capacity 1,200 bu. per 24 hrs.; 1 double stand 9x24 Noye rolls, LePage cut; and 1 Weller 12 in. x 24 in. steel elevator leg, approximately 130-foot centers, excellent condition. For reasonable quotations on all kinds of mill and elevator equipment write or wire STANDARD MILL SUPPLY COMPANY, 501 Waldheim Building, Kansas City, Mo.

## MACHINERY BARGAINS.

One Hughes Slow Speed Hammer Mill (new); one No. 4 Jay Bee mill, almost as good as new; one small Gruendler Mill; one 20" Monarch with two 10 h.p. motors, one 24" Dreadnaught motor driven; 18" and 20" B.B. Dreadnaught mills; one Wolf Crusher; four water wheels; elevators, all sizes; grain cleaners for all kinds of grains; corn crackers; reels for grading corn; bag closing machines; 2 and 3 pr. high corn roller mills; vertical batch mixers; clutches; belt tighteners; pulleys; hangers; shaftings. Every machine used in the feed mill or elevator. A. D. Hughes Co., Wayland, Mich.

## REAL BARGAINS.

Prompt Attention. Quick Shipments. When in need of elevator or mill machinery, notify us. We are headquarters for power and transmission equipment, and have on hand several well-known makes of motors, boilers, engines, etc.

Send us list of all your wants. We can supply you with full line of machinery for elevators, flour, corn and cereal mills. Complete equipment for modern mills of all kinds, molasses, stock and poultry feed plants, plans specifications, flow sheets, etc., our specialty.

Write us without delay.

SPROUT, WALDRON & CO.,

9 S. Clinton St., Chicago, Ill.

**SECOND HAND SCALES** for sale of any make, size or price, always find ready buyers when represented in the "Scales For Sale" columns of the Grain Dealers Journal.

## MOTORS FOR SALE.

**FOR SALE**—15 hp. General Electric motor, almost new. Will sell at big discount. Wm. F. Bolan, 1621 West St., Topeka, Kansas.

## BOILERS FOR SALE.

## FOR SALE

Two 350 hp. Atlas Water Tube Boilers. Two 350 hp. Heinie Water Tube Boilers. Nine 150 hp. Erie Shell Return tubular boilers. Save money. Communicate with J. Goldberg & Sons, 7500 Independence Ave., Kansas City, Mo.

## SEEDS FOR SALE—WANTED

**CERTIFIED PURE SEED CORN**—Reid's Yellow Dent and Laptad's 90 Day Red, 99% germination. Laptad's Stock Farm, Lawrence, Kan.

**SEED CORN FOR SALE**—Early Murdock, grown from certified seed. Germination 92%. Shelled and graded. \$3.00 per bushel. Write Tilmer Thompson, Elmore, Minn.

## HAY FOR SALE—WANTED

GET FULL MARKET value for your hay and straw. Ship to John Devlin Hay Co., Inc., 192 N. Clark St., Chicago, Ill. ALFALFA HAY for sale. Write for delivered prices.

## PARTNER WANTED.

YOU CAN SECURE a partner if you make your wants known to the grain trade through the Partners Wanted column of the Grain Dealers Journal.

## GRAIN WANTED.

WE ARE IN THE MARKET for Oat Clippings and Grain Screenings of all kinds. Leeson Grain Co., Inc., Buffalo, N. Y.

## FUNNY EXPERIENCES.

## FUNNY STORIES WANTED.

Write the story of your funniest grain trade experience to the Journal and you will receive one dollar for each story published. Address The Smile Coaxer, Grain Dealers Journal, Chicago, Ill.

I have received so many letters and telegrams in answer to advertisement in your paper that I think I will wait and see the results before having the ad inserted again.—A. M. G.

## Purchase and Sale Contracts

Is a double page form designed for recording contracts for the purchase and contracts for the sale of grain. Each kind of grain is entered on a page by itself so dealer may quickly total columns, and ascertain whether he is long or short.

The left hand pages are devoted to—Purchased; the column headings being: Date; From Whom; Bushels; Grade; Delivery; Price; By Whom Bot; How; and Remarks. The right hand pages show—Sold, under which the following information is recorded: Date; To Whom; Bushels; Grade; Shipment; Price; By Whom Sold; How; and Remarks.

The book is well printed and ruled on linen ledger paper, size 8½x14 in., and contains 80 double pages. Bound in full canvas and heavy board covers. Order Form 18 P & S. Price \$3.00.

Send all orders to

GRAIN DEALERS JOURNAL  
3 S. La Salle St. Chicago, Ill

## IMPROVED DUPLICATING GRAIN TICKETS

With the use of Form 19GT as a scale book much time and labor will be saved as one writing with the use of carbon will give you a complete record and at the same time, a ticket will be ready for the hauler. Very convenient for dealers who regularly issue scale tickets for each load of grain received. Chance of error will be minimized as both the ticket and office record will be the same.

This book contains 250 leaves. Each of the 125 original leaves bears four scale tickets, is machine perforated, printed on white bond, size of tickets 3x6½ inches. The 125 duplicates are printed on manila, but not perforated. Check bound at top of tickets with hinge top cover, 500 tickets in each book arranged horizontally. Size of book 7½x12 inches, each book supplied with 5 sheets of carbon.

The printing is crosswise the ticket and has spaces for the following record: "Owner, Hauler, Grain, Grade and Dockage, Gross, Tare, Net, Total Dockage, Net Pounds, Bushels, Price and Amount, Storage Ticket No., Station Ticket No., and Date, Weigher, Name of Firm or Buyer." Order Form 19 GT. Price \$1.50.

GRAIN DEALERS JOURNAL  
305 So. La Salle St. Chicago, Ill.

## Duplicating Wagon Load Receiving Book

Hauler	Gross	Tare	Net	

This book is designed to facilitate the work of country buyers during the busy season when each farmer is hauling a number of loads at a time. The above illustration shows the left hand side of the sheet which remains in the book. The outer half has the same rulings, but is printed on the other side of the sheet, so that when sheet is folded back on itself, and a sheet of carbon is inserted, an exact duplicate will be made of each entry. Each page has room for 33 loads and is machine perforated down the middle so outer half may be torn out and given to the farmer or sent to headquarters of line company.

The book is 12x12 inches, check bound with canvas back, contains 225 leaves ruled both sides, and nine sheets of carbon.

Order Form 66. Price \$3.00. Weight, 4 lbs.

Grain Dealers Journal 309 So. La Salle St. Chicago, Ill

## SEEDS FOR SALE—WANTED

### ED. F. MANGELSDORF & BRO.

Buyers and Sellers of Sweet Clover, Alfalfa, Clovers, Timothy, Grasses, Fodder,  
Seeds Sudan Grass, Soy Beans, Cow Peas  
St. Louis, Missouri

### J. G. PEPPARD SEED COMPANY

Buyers SEEDS Sellers  
ALFALFA, CLOVER, BLUE GRASS, SWEET CLOVER KANSAS CITY, MO.

### Crabbs Reynolds Taylor Company

CRAWFORDSVILLE, INDIANA

Buyers and Sellers  
CLOVER AND TIMOTHY SEED—GRAIN

### L. TEWELES SEED CO.

Distributors of

### BADGER BRAND SEED

Milwaukee, Wisc.

### BUCKEYE BRAND FIELD SEEDS

Strictly No. 1 Quality

The J. M. McCullough's Sons Co  
CINCINNATI OHIO

WE SPECIALIZE IN

ALFALFA BLUE GRASS

SUDAN MILLET and CANE

WRITE FOR SAMPLES AND PRICES

### RUDY-PATRICK SEED CO.

Kansas City, Mo.

### COURTEEN

### Seed Company

Weekly Price List on Request.  
Milwaukee, Wis.

### Tobin-Quinn Seed Co.

Kansas City, Mo.

THRESHERS & CLEANERS  
HIGH GRADE MISSOURI BLUE GRASS

### KELLOGG

SEED COMPANY

MILWAUKEE, WISCONSIN

FIELD AND GRASS SEEDS

### North American Seed Co.

MILWAUKEE, WIS.

CLOVERS—TIMOTHY  
ALFALFA

Get our samples and prices before buying

### CORNELI

### Seed Company

Saint Louis, Missouri

FIELD—GRASS—GARDEN SEEDS

Weekly Price List on Request

### LOUISVILLE SEED COMPANY, Inc.

Louisville, Kentucky

Buyers and Sellers of All  
Varieties of Field Seeds

Headquarters for Redtop Orchard  
Grass and Kentucky Blue Grass

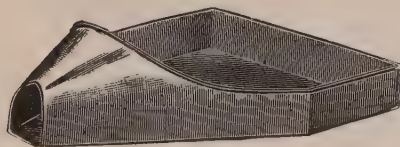
## Scale Ticket Copying Book

This book contains 125 leaves of scale tickets, four to a leaf. Each leaf folds back on itself so as with the use of a sheet of carbon to make a complete and perfect copy of the original on the stub which remains in the book. The original tickets form the outer half of the page, so the removal of any ticket does not release the others.

Each ticket has spaces for the following record: No., Date, Load of, From, To, Gross lbs., Tare lbs., Net lbs., Net bu., Price per bu., Test, Man On-Off, and Weighers Signature. Size 9½x11 inches. Printed on good paper, 5 sheets of carbon. Order Form No. 78. Price \$1.55; weight 2 lbs.

Grain Dealers Journal, 309 S. La Salle St., Chicago, Ill.

## SAMPLE PANS



Made of sheet aluminum, formed by bending, reinforced around top edge with copper wire. Strong, light and durable. The dull, non-reflecting surface of the metal, which will not rust or tarnish, assists the user to judge of the color and detect impurities. Grain Size, 2½x12x16½", \$2.00. Seed Size, 1½x9x11", \$1.65.

Send All Orders to

GRAIN DEALERS JOURNAL, 309 So. La Salle St., Chicago, Ill

## WANT ADS

in the GRAIN DEALERS JOURNAL make wants known to everyone connected with the grain trade. If you desire to buy or rent, sell or lease an elevator or anything used by grain dealers, try a JOURNAL want ad twice a month and your want will soon be satisfied.

## If you have a good thing

Tell the Grain Dealers—  
They'll do the rest—

Advertising is the quickest and best way—but it must be the right kind of advertising.

If you have spent your good money without satisfactory results, it's a case of wrong article or wrong advertising.

The easiest, most direct, most popular and most effective way to the grain dealer is The Grain Dealers Journal route.

Try it.

# WELLER

## GRAIN HANDLING EQUIPMENT

Installed in New Addition to  
Elevator of Cleveland Grain & Milling Co., Mansfield, Ohio

Designed and Erected by James Stewart Corp.



Weller made products are sold on the basis of quality. Installed in your elevator they will help you to operate at full capacity at the lowest cost for upkeep. Frequent shutdowns and waiting for repairs dissipate your profits.

Correct design and a reputation for unbeatable construction, guarantee you a long life of service in Weller made elevating and conveying equipment.

Our engineers have had unlimited experience in solving Grain elevator and Feed mill problems and will be glad to work with you and advise regarding the application of our products to your work, regardless of its nature.

All Weller made equipment is detailed in our catalog. Write for a copy.



### WELLER MFG. CO.

1820-1856 N. Kostner Ave.

CHICAGO

## GRAIN DEALERS JOURNAL

309 South La Salle Street, Chicago, Ill., U. S. A.  
Charles S. Clark, Manager

Published on the 10th and 25th of each month in the interests of better business methods for progressive wholesale dealers in grain and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improvement of grain, feeds and seeds.

**SUBSCRIPTION RATES** to United States, semi-monthly, one year, cash with order, \$2.00; single copy, 20c.

To Foreign Countries within the Postal Union, prepaid, one year, \$3.00; to Canada and Mexico, prepaid, \$2.50.

THE ADVERTISING value of the Grain Dealers Journal as a medium for reaching progressive grain dealers and elevator operators is unquestioned. The character and number of advertisements in each number tell of its worth. If you would be classed with the leading firms catering to the wholesale grain trade, place your announcements in the Journal.

Advertisements of meritorious grain elevator machinery and supplies and of responsible firms who seek to serve grain dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain trade, news items, reports on crops, grain movement, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. Address "Asked-Answered" department. The service is free.

### CHICAGO, APRIL 25, 1928

**BUILDING** a shed roof over the wagon loading platform helps to draw trade for side lines.

**MAGNETIC SEPARATORS** which remove metal from grain before it gets to the grinder greatly reduce the fire hazard of the plant.

**SAVE** the surface and you save all is a slogan to be kept in mind by the elevator owner when debating the repainting of his house.

**REPLACING** shingles with a metal roof is an improvement that contributes to the owner's peace of mind as well as to his pocketbook.

**SMALL CAR** pullers are being installed at a number of country elevators where the operators are too busy with other important matters to devote their time to pushing empties.

**OPERATORS** OF improved driers in the corn belt made little complaint of the wet crop husked last year. They were able to put new corn in shipping condition and generally bought it so they could afford to dry it sufficiently to insure safe shipping.

**THE NUMBER** of reports of dust explosions in feed mills and dust collecting apparatus connected thereto confirm the conviction that many grinders are attempting to produce material which is not good feed for livestock. Every precaution should be taken to remove all tramp iron from grain before it is ground else the purveyor of ground metal may be called upon to pay for valuable livestock.

**BUILDING** material prices are on a steady basis, so that anyone contemplating building a grain elevator or improving an existing plant can not afford to delay the work in the hope of lower prices of materials.

**DUST EXPLOSIONS** in country elevators combined with the operator's desire to avoid wading around in the dust has resulted in an increasing number of elevators being equipped with dust collecting apparatus.

**RED WINTER** wheat has become so valuable dealers may have to keep their stock in the office safe over night, as do the diamond merchants. It is now commanding a premium of 50 cents over the Chicago May future.

**THE ELEVATOR** owner who hesitates to install an improved manlift pays dearly for his parsimony. The credit given by the mutual fire insurance companies for this easy transportation to the cupola soon pays for the improvement.

**BATCH MIXERS** are proving a profitable investment for many feed grinders. Improved facilities for satisfying the whims of the expert feeders not only attracts new customers, but wins increased patronage from old customers and gives more complete employment to all facilities.

**THE MOVEMENT** to eliminate cereal oats from future contracts recognizes that to have a market we must have buyers as well as sellers. If the future pits are to be sinkholes for the dumping of undesirable grades how can buyers be expected to stand on their contracts to delivery day?

**THE SAVING** in power effected through the installation of anti-friction bearings soon offsets the cost of the improvement, but elevator operators who have modernized their plants soon forget this saving and wax enthusiastic over the relief from worry over hot bearings and the saving in labor.

**THE TIME** to test your scales is immediately you suspect they are wrong. Test them with other scales and call in the scale inspector before you have dissipated your working capital by paying for more grain than is delivered. Careful grain dealers always have all scales inspected and sealed as soon as frost is out of the ground.

**FREIGHT** paid by shippers patronizing government operated barge lines is not the whole cost to the shipper. In addition he pays his share of the taxes for providing and maintaining the navigable channel, plus the fixed charges on the government investment in floating equipment and terminals, plus the sacrifice of local, state, and federal taxes, that would be paid by a private corporation. The saving thru government operation of any service is a delusion.

**THE GRAIN DEALER** who permits his elevator duties to absorb all his strength and time fails to learn of many opportunities that would net him more than the wages of several elevator hus'lers. Merchants who close their minds to all helpful information soon stagnate. The keen minded progressive dealer is ever alert for business hints or suggestions which will contribute to his greater success. The conceited dealer who knows it all is hopeless.

**IMPROVED DIRECT** reduction elevator head-drives are relieving many elevator operators of worry over shafting which always got out of alignment every time a new crop started to move.

**SENATOR McNary's** advocacy of the \$300,-000,000 Columbia River basin irrigation project to place more lands under cultivation and thus increase the burdensome farm surplus may surprise those who do not understand that the main purpose of legislators now is to devise some scheme to raid the public treasury for the benefit of private interests.

**ELEVATOR OPERATORS** who stop to consider how dependent their plant is upon the leg belt always make sure that the belt in use is surely good for another crop or else discard it in favor of one that is sure to serve continuously without any break downs. Cheap leg belting is often the most expensive investment the elevator man can make.

**A NEW YORK LINSEED** crusher who was accustomed to supplying free transportation for his employees to and from his plant in Edgewater, N. J., has been sued for sums aggregating \$4,000,000 because the launch was sunk and 52 employees lost their lives. Employers of labor generally protect themselves against accidents of this character by casualty insurance.

**GRINDING FEED** with out-of-date, obsolete or worn out machinery is sure to increase the power cost as well as to reduce the value of the service to the customer. So many improvements have been made in grinding equipment during the last two years no grain dealer should attempt to start in the business with anything but the latest and best grinding equipment obtainable.

**CLOVER SEED** dealers in the neighborhood of Sunbury, Ohio, have sold several lots of clover seed recently to a stranger who always pays with checks on the Delaware Savings Bank signed "Geo. W. Stone." Two of these checks, one for \$19.00 and the other for \$21.40, have come back with the distressing notation, "No such account." Evidently Mr. Stone is a traveling clover seed salesman who replenishes his supply at the expense of country dealers.

**THE ELEVATOR** man's new sidelines are bringing him a number of new problems which he seems unwilling to meet face to face. In every community will be found a number of farmers who are willing to be financed by any one who will supply the cash or credit without interest and the easy-going grain merchant who is accustomed to paying cash for everything he buys, out of his sympathy for the farmer, hesitates to refuse him credit or charge interest on old accounts, and of course he is being imposed upon. In Ohio many dealers seem to be willing to pay interest on money at the bank in order that they may extend credit to their customers. They know it is not a profitable practice, but they have not the back bone to charge interest on book accounts or refuse credit. The slow payers simply neglect to come in even to buy more goods when they have an account long past due, so the accommodating credit giver drives business to his competitors.

THE PROGRAMS of the associations published in this number foretell interesting meetings, which should be helpful to every dealer interested in better conditions of doing business.

THE COST OF operating the country elevator has resulted in a world of investigation and discussion during recent years, but still the elevator operators stubbornly persist in trying to handle grain on the narrow margins of the past. They all admit operating costs are higher than ever, but few of them make any effort to increase their operating margin to a point where they will net a profit from the business done.

WHEN GRAIN GROWERS and dealers fully understand the advantages of selling grain in a great central public market they will not route shipments around their nearest market. The advantages of having demurrage, grading, weighing, appeals and switching looked after by a vigilant commission merchant is worth all it costs and the net returns after paying for the various extra services should average more per car than where grain is shipped around the market to an interior point.

ANOTHER fireproof elevator has suffered a heavy loss as the result of fire. No, the tile did not burn, but the leg casing was of wood, likewise the manlift, the wagon dump, the flooring of the cupola and the overhead bin. Wood burns in a tile elevator almost as readily as it does out in the open. One bin of corn was completely destroyed, having been set on fire by embers falling from cupola. If you want a fireproof elevator you will be greatly disappointed if you include any combustible material in its construction or equipment.

AN UNENCLOSED single phase motor in an Iowa elevator burned out recently and altho the firemen sprayed it with chemicals, the fire broke out again about midnight and resulted in a fire loss of several thousand dollars. It would have been a profitable investment for the owners to have displaced the obsolete motor with something modern and up-to-date. Some elevator operators have profited directly from discarding obsolete electrical equipment thru a reduction in their insurance rate, a marked reduction in the cost of power used and a reduction in the time and labor consumed in caring for the motors.

WHEAT BUYERS who have attempted to reflect the premiums they obtained on account of protein content back to the farmers will be interested in the average premiums paid in the Kansas City market for No. 2 hard for the different percentages. The average for the last five years is published elsewhere in this number. It is interesting indeed to note that millers paid nearly four times as much for wheat containing 14 per cent protein in 1927, as they paid for the same wheat of the 1926 crop. The premiums paid in 1924 were much more liberal than any of the following three years. The premiums seem to depend entirely on the eagerness of the millers to obtain wheat of high protein content. Country elevator operators need to exercise extreme caution at the beginning of a new crop movement, and the safer way is to grant no premiums until several shipments from your station have been heard from.

THE ADVANCE of 25 cents per bushel in the price of July wheat during the past 7 weeks discounts considerable damage to the winter wheat crop; and as a future price making factor the lead now will be taken by reports from the Northwest spring wheat territory on the progress day to day of the crop just seeded. A price for Minneapolis September wheat only 14 cents over a year ago reflects no alarm in that quarter.

THE INTERSTATE Commerce Commission was given a real jolt last week when the U. S. Supreme Court refused to stay the injunction restraining the Commission from enforcing its order requiring railroads to cancel tariffs reducing coal rates. If the railroads desire to carry coal to the ice-bound regions of the Northwest below cost, the courts insist that they have the right to do it, and the Interstate Commerce Commission has no right to interfere. We never did think highly of government by commission.

THE BUREAUCRATS working for bigger farm crops are turning in other directions since the agitation for farm relief to care for the surplus. Now they are conducting a propaganda for reforestation, which if successful will place the lumber producers in the possession of a surplus necessitating "lumber relief." Why should government interfere to ruin the market. All the owners of denuded forest lands need is relief from the exorbitant taxation levied to support the taxeaters. A reduction of one-half in the tax on land growing new timber is all that is needed to encourage reforestation.

THE NUMBER of corn grades will not be reduced unless the entire trade makes a more vigorous and persistent demand for the reduction desired. Until the members of the trade agree on what is wanted no change is likely to be made. Too many pseudo-reformers prattle perpetually about progress being inseparable from change, yet the trade would spin a fit if some wild theorist were to suggest doubling the number of grades of corn. That would be change and the argument applies with equal force to an increase or a reduction in the number of grades. If the champions of change have no better argument for the so-called progressive move then it would be much better to let the present grades stand until the demand for change is supported by more urgent arguments.

PROTEIN TESTING at the country station is an annoyance that the grain dealers in the States will be spared for a considerable time. Fortunately this development of the future is now being threshed out in Canada, and authorities south of the border can well afford to wait for the verdict of the Dominion. No quick and easy way of protein testing each wagon load as it is hauled in has been devised; and the buyer must use his judgment, reinforced by such tests as he may have had made by commercial laboratories on selected samples of the different sorts of wheat grown during the current crop year in the territory tributary to his elevator. Even with the best of intentions there is likely to be dissatisfaction if the buyer pays some patrons 3 to 7 cents per bushel more than others, if not backed by an actual test.

## Are You Going to Build?

The grain dealer who contemplates building a new elevator or improving an old one, owes it to himself and his builder, to look about a bit and learn what other dealers have done and what other elevator builders have to suggest or recommend. It would be a crime to build an old style house now and equip it with a single leg with 4x5 in. buckets and the old style sweep horse power. We feel certain that no reader of the Journal would seriously contemplate investing perfectly good money in such obsolete facilities, but there are many other things actually in use today in country elevators that are almost as far behind the times as the old blind horse.

It costs more today to build a modern elevator than ever before, but it is worth more and the dealer who studies the market and learns what is obtainable will get much more for his money than he who simply plunges ahead blindly and duplicates the elevator which he held as an ideal ten years ago. Many changes and improvements have been perfected, which cost no more than the old style arrangement. If you are going to improve this year, so as to be ready to handle the enormous crop now being planted, then travel around among your neighbors who have new houses, read everything you can get relating to elevator improvements. It may be that you will not only get a much better house, but you will also save a lot of money. It always pays to get posted before buying.

## Public Warehousing at Chicago.

Having discovered that it threw a monkey-wrench into the machinery of grain marketing by procuring the passage of the McCarthy bill by the Illinois Legislature, the Illinois Agricultural Ass'n now is willing to approve the Board of Trade Warehouse Corporation as the only remaining legal alternative permitting the elevator owners to remain in the grain business.

Without elevators doing a public storage business and regular for delivery on the Board of Trade, there could be no grain market at Chicago, nor anywhere in Illinois. The bill sponsored by the Agricultural Ass'n makes it unlawful to conduct a public warehouse business in this state on a basis that is both competitive and profitable. Those who doubt that the farmers could drive the grain market out of Illinois into Milwaukee, Indianapolis, St. Louis, Louisville or Cincinnati have only to consider that the union miners of Illinois by state legislation restricting employment in the mines have succeeded in driving the business of coal mining into Kentucky and West Virginia.

Under the plan of the Board of Trade Warehouse Corporation the storage of grain for delivery on the Board of Trade contracts will become a natural monopoly. By special arrangement with the owners the loss due to grain going out of condition while in store will not be borne by the holders of the warehouse certificates or the buyers of the futures, who may have the certificates tendered to them on contract. This feature alone should warrant the approval by the Commerce Commission of the whole scheme, as it will prevent the frightened liquidation just before delivery day that in times past has depressed the price of grain below its legitimate value.

## If the McNary-Haugen Bill Becomes a Law.

By W. F. JENSEN, PRESIDENT FEDERATED AGRICULTURAL TRADES OF AMERICA

In his Message to Congress last December President Coolidge suggested that the Cooperative Marketing movement might be assisted with public funds, to quote from his message:

"This is not a proposal to loan more money to the farmer, who is already fairly well financed, but to loan money, temporarily, to experimental marketing associations which will, no doubt, ultimately be financed by regularly established banks."

The Secretary of Agriculture, Wm. M. Jardine, was more specific and firm in his position that government funds should be furnished to handle marketing activities and to acquire physical property, such as plants, creameries, elevators, warehouses, etc., by cooperatives.

Almost immediately at the commencement of the present Congress, Senator McNary introduced his farm relief bill, which provides public funds, and Mr. Haugen presented his bill in the House, which is very similar to the McNary Bill, and both measures are known under the definition of the McNary-Haugen Bill. This bill has been reported favorably in both the Senate and the House by the Agricultural Committee. In the House the measure calls for \$400,000,000 and in the Senate it calls for \$250,000,000.

Under this measure as it stands, a Federal Farm Marketing Board would be created, which would be required to seek the stabilization of agricultural products through loans. If that plan should fail, the Board would be authorized to employ the Equalization Fee—a levy whereby the producers of surplus crops are obliged to pay for the marketing of such surplus, but in reality it can be classed as a consumer tax, and can be regarded in no other light. It is fairly plain that if the farmer must have more, the consumer must pay more, and the loss assumed in the export of surplus crops, and the administrative cost, would fall upon the consumer, and we would face a situation wherein our American consumers would help to pay the food bills of the European consumer. Our surplus grain would be fed to dairy and meat producing animals in Europe, our cotton would go to English looms at a lower cost than to our domestic users, and manufacturers in our country, would have to compete against importation from European countries on manufactured products into which had entered basic American agricultural products at a lower cost than to our own domestic users; and the difference in this cost of basic products (that is, the loss), would also have to be assumed by our domestic consumers.

**Section 5—Loans.**—The McNary Bill, now known as S-3555, provides that, in order to carry out the general policy of the Act, two classes of loans and a revolving fund to cooperative ass'ns at 4% interest are provided. Under the first loan provision of this section, the entire revolving fund of \$250,000,000 is made available for loans to cooperative ass'ns, to assist such ass'ns in controlling any domestic, regional or national, seasonal or year's total surplus, of any agricultural commodity in excess of the requirements for orderly marketing, or in excess of the domestic requirements for such commodity. The second loan provision of this Section authorizes the Board to make loans to cooperative ass'ns for any of the following purposes:

- (1) To assist such associations in the acquisition of necessary facilities, plants and equipment.
- (2) To assist such associations in federating or extending their membership.
- (3) To furnish such associations funds to be used as capital for agricultural credit corporations to function in connection with intermediate credit banks.

"The aggregate amount of loans for the three specific purposes last mentioned is limited at any one time to \$25,000,000. The Board is authorized to give consideration to members' marketing contracts as security for the repayment of

loans, which it is provided are to be repaid by a charge upon or deduction from each unit of the commodity delivered to the ass'n by its members, unless some other method of repayment is agreed upon by the Board and the association."

The revolving fund of \$250,000,000 can be used: \$225,000,000 to finance the marketing and carrying of the product itself, and \$25,000,000 can be used for the purpose of acquiring creameries, elevators, warehouses, factories, etc., also for the purpose of financing the expense of cooperative ass'ns in extending their membership and federating among themselves.

I would construe this financing to mean that it could be used in "top financing," or in other words, that cooperative ass'ns can use and exhaust their local and home connections of credit, and secure same in the usual manner, with mortgages or warehouse receipts, and, after this is done, these public funds can be used.

Should the McNary-Haugen Bill become a law, we are then confronted with this situation as a logical conclusion: A very large sum of public money would be used to finance and extend cooperative ass'ns, and this extension would be at the expense and the extinction of the marketing and manufacturing plants now in existence. In other words, quoting from Secretary Jardine's report to Congress last November:

"Success in such effort would necessitate some readjustment in our present machinery for agricultural marketing. Some concerns now in the business might have to drop out, and others might find their affairs less profitable."

The creation of a Federal Farm Marketing Board, of which the Secretary of Agriculture would be an ex-officio member, in connection with the active participation of all of the various government departments, would give this movement the standing of, and in fact it would be, Government in Business.

While many farmers have the ability, it is not to be believed that, as a whole, they have the time, and that they can devote their time to the management of marketing and manufacturing enterprises and we must come to believe that, if the McNary-Haugen Bill becomes a law, we would then actually have government in business. To be more explicit, we would have agricultural products marketing and manufacturing financed and managed by our government. There can hardly be any difference of opinion on that.

I also want to call your attention to this fact—that the purpose of the McNary-Haugen Bill as it reads, will function not alone in taking care of an export surplus of any agricultural commodity, but also in connection with the *control and pooling of any commodity for domestic purposes*.

It would seem that the cooperative development should be allowed to stand on its own feet, and that as such it would take its place in the ranks of other industries as a sound and meritorious commercial function. But, it seems that the belief is held by some people that the cooperative development should be forced upon the producers, that it should be made compulsory by reason of economic factors such as we find in the proposed McNary-Haugen Bill, and that our country should be made to experiment with a class of legislation that many thinking people consider would be fatal to our American institutions, and, while being tried out, would result in the wrecking of commercial enterprises which have heretofore performed a useful and essential service.

The proposed Federal Farm Marketing Board would actually be in business, would have public funds as operating capital, would engage in commerce, in manufacturing and marketing activities—at least as perhaps an indirect, but entirely as a controlling factor. The very intent of the law is to establish additional plants and facilities for marketing and manufacturing purposes and thus add to or destroy the already existing marketing and manufacturing machinery which has performed a useful and honorable service heretofore.

## Liability of Buyer Specifying Bank.

The Hardeman-King Co., McAlester, Okla., on May 3, 1924, shipped merchandise to the J. R. Rice Co., Gowen, Okla., under a contract reading:

"Terms of payment arrive draft, with bill of lading attached, through First State Bank of Gowen.

"Buyer specifying the bank, becomes responsible for final payment to the seller."

Seller made draft thru the American National Bank at McAlester and the Rice Co. paid with a check on the First State Bank, May 10. On May 12 the First State Bank issued its draft on the First National Bank of Hartshorne in favor of the American National Bank. On the following day the First State Bank failed to open its doors, and on May 15 the draft of the First State Bank was protested for non-payment.

The Hardeman-King Co. brought suit July 2 to recover \$943.75 from the buyers, and the jury gave a verdict in favor of plaintiff. On appeal the Supreme Court of Oklahoma, Feb. 14, 1928, reversed the decision and granted the defendant, J. R. Rice Co., a new trial.

The Supreme Court said: We reach the conclusion that the meaning of the provision of the contract in this case reading, "buyer, specifying the bank, becomes responsible for final payment to the seller," is obscure, requiring extrinsic proof to determine if the buyer had in fact designated the bank so as to charge it with the responsibility of final payment, and that the question was one of fact for determination by the jury under proper instructions of the court, and that refusal to permit the defendant to show the circumstances as to designation of the bank, and determination of the question against the defendant by the trial court from the fact of execution of the contract constitute reversible errors.

The court accepted the principle that a buyer specifying the bank is liable; but in this case desires proof that the buyer had in fact specified the bank.—265 *Pacific Rep.* 102.

## I. C. C. May Not Prevent Rate Reductions.

The powers of the Interstate Commerce Commission were cut down during the past two weeks. First, the Southern carriers hauling non-union mined coal from Southern West Virginia, Virginia, Kentucky, and Tennessee, wished to reduce their rate on lake cargo coal destined to lower Lake Erie ports to enable their shippers to compete with the union mined coal from Pennsylvania and thereabouts, the latter having been recently granted a rate advantage over the southern non-union mined coal shippers. Thus were the Southern coal shippers to be enabled to compete with the Northern shippers.

But the Interstate Commerce Commission, and particularly the lately defeated Commissioner Esch, thought otherwise, their actions aiming to protect the union mined coal shippers.

The Southern coal companies filed a bill of complaint in the U. S. District Court at Richmond, Va., against the United States of America and the Chesapeake & Ohio, Norfolk & Western and the Louisville & Nashville railroads. As a consequence, a temporary injunction was granted on Friday, April 13, restraining the Interstate Commerce Commission from enforcing its order of Feb. 21, 1928, directed to the Southern rail coal carriers, requiring them to cancel tariffs containing 20 cents a ton reductions in their coal rates, as above described. It was the announced intention of these Southern coal companies to seek a permanent injunction after a full hearing.

Counsel for the Northern carriers, such as the New York Central, Baltimore & Ohio, and other railroads connecting with the Southern carriers, then sought to have the United States Supreme Court at Washington, D. C., stay the injunction. This the Court refused to do on April 17. So the reduced rate went into effect on Apr. 20.

To do anything because others do it, and not because the thing is good, or kind, or honest in its own right, is to resign all moral control and captaincy upon yourself, and go post-haste to the devil with the greater number.—Robert Louis Stevenson.

## Asked— Answered

[Readers who fail to find information desired on any subject of interest to grain dealers should send us their query for free publication here. The experience of your brother dealers is worth consulting. Replies to queries are solicited.]

### Cleaning Smutty Wheat.

*Grain Dealers Journal:* What are the most effective methods of treating smutty wheat?—Terminal Elevator Operator.

**Ans.:** Smutty wheat can be scoured dry and this helps to a large extent if effective blowing equipment is used to take care of the dust and smut spores as fast as they are removed. The most effective method is by washing the grain and then running thru a dryer to bring it back to proper moisture content. This method effectively cleans the berry, even to the crease, and puts the grain into salable condition.

### Charge for Delay in Surrendering B/L?

*Grain Dealers Journal:* The Pennsylvania Railroad agent here seems to have put a new rule in effect. The agent now charges us for the time elapsing between the notification of the arrival of a car billed to order and the time of delivery of draft. Then they charge from the minute the car is placed until completely unloaded. Formerly we paid only after the expiration of 48 hours after 7 a. m. on the day following setting of car. Is the agent right?—T. B. Jones.

**Ans.:** The regular demurrage rule on allowing 48 hours from the first 7 a. m. after placement is still in effect everywhere; but this matter of surrender of B/L comes under the reconsignment rules effective long ago, but delayed in enforcement by some agents for several months. Evidently the agent is now beginning the enforcement of the reconsignment rule on cars held for surrender of B/L under which \$6.30 per car is charged when B/L is surrendered subsequent to 24 hours after notice of arrival.

### Aluminum Paint for Grain Elevators.

*Grain Dealers Journal:* We note your article in the Feb. 25 number of the Journal in regard to a Warsaw, Ill., elevator being painted aluminum color. Would you please give us the complete address of this elevator and any details you may have regarding the kind of surface to which this paint was applied, the cost and other items?—W. W. Thomas, Pritchard & Rafert, Inc.

**Ans.:** The elevator of the Farmers Grain & Supply Co. at Warsaw, Ill., was painted aluminum. Irven Meyer is manager. We are not informed of the kind of surface, but would presume it to be sheet iron, to which such paint is most logically applied.

Aluminum paint costs approximately one-third more than ordinary paint. Its particular advantage is a striking appearance, which is of considerable advertising value, and unusual ability to deflect heat. Whether or not these advantages are sufficient to offset the extra cost is necessarily a question to be decided by the elevator owner.

The lasting quality of a paint is dependent to greatest extent on the vehicle holding the protective and coloring ingredients to the surface. Pure linseed oil has been found best for this purpose, altho sperm and banana oil are also used, usually mixed with linseed oil. If the protective and coloring ingredients are harmful to the carrier the paint will suffer accordingly.

Flake graphite, which sets up no chemical reaction with the carrier, is commonly used as a protective base in all but the lightest colors and offers excellent protection when a good vehicle is used to hold it to the surface. Aluminum pigment is of flake formation and this combines well with flake graphite to form a durable and elastic protective covering.

### Charging Freight on Grain Doors?

*Grain Dealers Journal:* On the last two cars of ear corn that we received the B. & O. R. R. Co. charged us for freight on the weight of the grain doors, in addition to the weight of the grain.

It looks to us as tho it is as reasonable to charge for weight of their box car as on weight of their grain doors. We are withholding freight on this grain door proposition.—Ervin Grain Co., Xenia, O.

**Ans.:** The grain doors and grain door lumber are owned by the railroad company and a part of its equipment, for the transportation of which the shipper cannot be charged. No warrant exists for the assessment of freight on the doors. The shipper should positively refuse to pay freight on the grain doors.

### How Can Waterproof Concrete Be Made?

*Grain Dealers Journal:* I want to change my shelter and dump. Is there any way to mix cement to make it hold water out of the pit?—H. A. Gibbs, Arrington, Kan.

**Ans.:** For waterproof concrete the mixture should be one cubic foot of cement to one and one-half cubic feet of sand to two cubic feet of gravel or crushed stone. The sand should be very coarse. Gravel should be washed thoroughly to free it from all foreign matter.

The mixing must be 100 per cent more than ordinary concrete, of a consistency to flow freely without showing excess water on top when placed in the forms. The secret is the thorough spading or puddling after placing in the forms, and the more this is done the better the job, to make sure there are no air spaces to form channels for the water to pass thru. By mixing only small batches at a time the spading is made easier.

When cement concrete is correctly proportioned and properly mixed and placed in the forms it is not necessary to use any special admixture to make it waterproof.

### Protecting Transit?

*Grain Dealers Journal:* We sold a car of corn delivered a certain point. The buyer did not give us routing instructions. By error we routed the car over the longest route, being a point to which we did not ship corn before and our traffic man did not look at the map to find which was the shortest route.

It happened that the freight rate over this long route was 7c per cwt. higher than over the shortest route. The buyers refused the car but we wired back that we shall protect them on the excess freight rate. They, however, wanted 7c per cwt. additional allowance to protect them on loss in transit privileges.

They are a big industry who, of course, we think ship their products in all directions.

Do you think that they are entitled to protection of the 7c they ask for loss in transit privileges? We rather think that a big concern like that is able to use one carload of tonnage without trying to penalize us. What do other grain dealers think about this?—A. Hardeman.

**Ans.:** Transit privileges are recognized by the trade as having sufficient value to warrant a shipper in demanding protection to the same extent that he would have had had the shipment moved in the expected course. An arbitration com'te, therefore, would allow the claim for actual loss, if shipping directions were given, and the actual loss would have to be proved as a matter of fact and not guesswork.

In law the result might be different on the theory that the seller sold delivered and that his responsibility ceased when the grain was delivered.

A somewhat similar case was the arbitration between the Guthrie Milling Co. and the Garfield County Milling Co., in which case the decision of the arbitration com'te of the Oklahoma Grain Dealers Ass'n was approved by the arbitration com'te of the Grain Dealers National Ass'n. The wheat moved from Enid to Guthrie over the Rock Island and Santa Fe, whereas the D., E. & G. R. R. Co. would have charged less. The decision was against the buyers, Guthrie Milling Co., because the company did not give shipping directions. The only difference in this case is that the grain was sold, not delivered, but track Enid.

Accepting the viewpoint of the arbitration com'tes about all the seller could be held for is the difference in freight. If buyer wanted certain transit to be protected it should have

furnished billing instructions that would have protected that transit. If seller had not routed the car at all and it had moved over the more expensive route the railroad company would have had to stand the loss on freight.

The question was submitted to three grain men on the floor of the Chicago Board and all declared the buyer had not a leg to stand on, having neglected to give shipping directions that would have protected the desired transit.

### How to Eradicate Garlic in Wheat?

*Grain Dealers Journal:* What is the best way to eradicate garlic in wheat?—Coulterville (Ill.) Farmers Co-op. Grain & Whse. Co.

**Ans.:** The method of eradication of garlic advocated by the U. S. Department of Agriculture and approved by the Southern Illinois Millers' Ass'n is as follows:

"Small patches of wild garlic can be destroyed by spraying for two or three successive years, about April 15, before the heads form. For this purpose waste oil from the farm tractor or from garages is most convenient. Strain thru several thicknesses of cheese cloth, thin out with kerosene and apply with a small hand pressure sprayer or knapsack sprayer. If a sprayer is not available, use a sprinkling can, but do not saturate the soil. Rubber parts of spraying outfits should be carefully cleaned after the oil is used.

"Where the cultural method is used to eradicate the garlic on large areas, it is advisable to destroy the weeds along fence rows by the spraying method. Unless this is done, the garlic is almost certain to work its way back into the fields. For this purpose a pressure sprayer should be used and it is best to purchase orchard heating oil (sometimes called garlic oil) for the work. The oil is used at the rate of 75 gallons per acre, so the combined area of the fence rows must be determined before purchasing the oil. The first spraying should be done about April 15 of the season following the first fall plowing. One spraying per year for the three years will eradicate the garlic. Kerosene oil will not do the work since it is not sufficiently heavy to penetrate into the bulbs."

### Equalization Fee on Wheat Handled Intrastate?

*Grain Dealers Journal:* What do you understand will be the status of grain and other agricultural products with reference to the compulsory payment of the equalization fee provided for in the McNary-Haugen Bill, if it becomes a law. For instance with wheat produced on an Indiana farm, hauled by producer to an Indiana mill and sold and used wholly within the state, never entering into Interstate or Foreign Commerce?

What will be the status under the bill of wheat grown on the Indiana farm, retained and used for seed on the same farm, never entering commerce at all? Will such wheat, of either class, be amenable to the equalization fee, and if so, why and how?

Since the bill provides for products that enter into interstate, and or foreign commerce, is there any authority in Congress or the Courts, except in times of war and other stress, to give the Federal government such authority to enforce its acts under the conditions, such as this measure will attempt to create?

The producers and all others who will have to do with this measure will reluctantly give up an equalization fee, be it little or much, without the express warrant of law to compel it.

It is quite unnecessary for me to attempt to approximate the percentage of the agricultural articles that will never enter interstate or foreign commerce, if not legally obliged under the provision of the law.—Chas. B. Riley, secretary Indiana Grain Dealers Ass'n, Indianapolis.

**Ans.:** Altho Sec. 8 of the bill provides that the board may require any person, engaged in the transportation, processing or acquisition by purchase of any agricultural commodity, to collect the equalization tax, the courts always construe a law strictly; and under paragraph (a) of the bill it is to be paid as a regulation of interstate and foreign commerce, so that it would not apply to grain that did not cross a state line.

Assuming that the bill would be enforced, which is improbable, grain would be dearer by the amount of the equalization tax in those states of the Union not growing sufficient grain for their own consumption.

Such an import tax between the states is un-

constitutional, and the drafters of the bill sought to evade this by miscalling the tax a "fee."

The tax could be levied upon all wheat grown by using the power to levy what are known as internal revenue taxes; but here again the promoters would find it difficult to get the money so taxed out of the treasury and into the hands of the farmers, it not being possible to use public money for private purposes.

The bill was published on pages 365 and 366 of the Journal for March 25. When it passed the Senate April 12 it was amended to eliminate meat and meat products and fruits and vegetables.

## What Per Cent for Wear and Tear?

*Grain Dealers Journal:* Will you kindly inform us what is the average life of a feed grinding plant? I have my plant fully paid for, but recognize that it will not last forever and I wish to put aside a certain percentage so as to provide funds for installing new equipment when my present grinding machinery is worn out. I notice that you have been urging operators of feed mills to allow a liberal percentage for depreciation and obsolescence, but you neglected to tell what percentage is necessary. Any light you can give me on this subject will be greatly appreciated.—Fred Morris, Frankfort.

**Ans.:** Wm. W. Thompson & Co., auditors, state that the U. S. Board of Tax Appeals allows 10 per cent depreciation annually on machinery and on grain elevators. In many instances the depreciation is considerably more. It varies in different feed mills, according to the class of grinding equipment and the number of hours run per day. Operators of sawmills claim a depreciation of 35 per cent. It is safe to say that the depreciation on a feed milling plant would be over 10 per cent.

## Legislation at Washington.

**AN APPROPRIATION** of \$165,000,000 of federal aid in road construction was approved Apr. 12 by the House Com'te on Roads.

**SENATOR BRUCE**, Maryland: The equalization fee is absolutely unfair and unconstitutional. It is nothing but a big bag of wind.

**ROY H. MONIER**, head of the Missouri State Grain Inspection, wrote Senator McNary recently urging a modification of the present administration of the Grain Standards Act.

**H. R. 12892** and 12893 have been introduced by Ketcham of Michigan and Jones of Texas, to stabilize the prices of agricultural commodities by issuance of export debentures.

**AN AMENDMENT** to the farm relief bill was adopted in the Senate by 42 to 30, increasing the revolving fund from \$250,000,000 to \$400,000,000. Not half enough to satisfy the agitators.

**SENATOR FESS**: The government regulates the railroads to reduce the cost to the public, whereas the farm relief bill purposes government regulation to increase the cost to the public. Why not make the consumer pay the price wanted by the producer for farm products?

**S. J. RES. 40** is objected to by the National Fertilizer Ass'n, since it would put the federal government into the business of manufacturing fertilizer. "The creation of the precedent would constitute a threat against every American industry, and every security-holder in the country," protested the Ass'n.

**REP. ADKINS** of Illinois: The grain and cotton exchanges should favor regulation instead of fighting it. Public sentiment is aroused and if there is no regulation there will be a clamor to abolish the exchanges. The speculation has made trading in futures at times a regular Louisiana lottery, before House Com'te on Agriculture on Apr. 12.

**W. H. JASPON** of Dallas, Tex., president of the Planters Cotton Products Co., before the Senate Agricultural Com'te opposed the Mayfield Bill to regulate contracts on cotton seed oil exchanges. He declared that the legislation proposed in the Mayfield bill would probably cripple the cottonseed oil industry and specifically opposed the provision of the bill requiring deliveries to be made in barrels instead of tank cars.

**THE McNARY** bill passed the Senate Apr. 12 by a vote of 53 to 23. Those voting for the bill included 24 Republicans, 28 Democrats and one Farmer-Labor member. Against the bill were 14 Republicans and 9 Democrats. Senator Fess of Ohio said: I do not see how a man of the economic judgment of the President of the United States can sign it. I would be the most surprised man in the chamber if he signed it and I have not talked with him about it.

## Coming Conventions.

Trade conventions are always worth while as they afford live, progressive grain dealers a chance to meet other fellows from the field of daily strife and to be convinced that the much maligned horns are truly mythical. You can not afford to pass up these opportunities.

**April 28.** Western Seedsmen's Ass'n Spring meeting and annual election, Hotel Fontenelle, Omaha, Neb.

**May 1-2.** Western Grain Dealers Ass'n twenty-eighth annual convention, Sioux City, Ia., Martin Hotel headquarters.

**May 10-11.** Illinois Grain Dealers Ass'n thirty-fifth annual convention at Joliet, Ill., Hotel Louis Joliet headquarters.

**May 15-16.** Kansas Grain Dealers Ass'n thirty-first annual meeting, Dodge City, Kan., headquarters at the new "Lora-Locke" Hotel.

**May 18-19.** Oklahoma Grain Dealers Ass'n Thirty-first annual Convention, with the Oklahoma Millers Ass'n and the Coal Dealers Ass'n, Enid, Okla.

**May 21-22.** Texas Grain Dealers Ass'n thirty-first annual convention, meeting place to be announced later.

**May 24-26.** American Feed Manufacturers Ass'n Twentieth Annual Convention, West Baden Springs Hotel, West Baden, Ind.

**May 31-June 1-2.** Pacific Coast Seedsmen's Ass'n third annual convention, Portland Hotel, Portland, Ore.

**June 12-13.** Central Retail Feed Ass'n Third Annual Convention, Milwaukee, Wis.

**June 15-16.** Pacific Northwest Grain Dealers Ass'n annual convention, Walla Walla, Wash.

**June 18-19.** Montana Grain Dealers Ass'n, Wolf Point, Mont.

**June 19-20.** Ohio Grain Dealers Ass'n 49th Record Breaking Jubilee and Convention, Argonne Hotel, Lima, O.

**June 21-23.** Southern Seedsmen's Ass'n tenth annual convention, Monteleone Hotel, New Orleans, La.

**June 26-27.** Farm Seed Ass'n of North America, Stevens Hotel, Chicago, Ill.

**June 27-29.** American Seed Trade Ass'n Annual Convention, Stevens Hotel, Chicago, Ill.

**June 28-29.** Indiana Grain Dealers Ass'n, mid-summer meeting, Hotel Gary, Gary, Ind.

**June —.** Farmers Managers Ass'n of Nebraska, mid-summer meeting, Omaha, Nebr.

**Aug. 20-22.** National Hay Ass'n Annual Convention, Fort Wayne, Ind.

**August —.** Oklahoma Seedmen's Ass'n, Stillwater, Okla.

**Sept. 24-26.** Grain Dealers National Ass'n, Boston, Mass.

**September 24-26.** Terminal Grain Weighmaster's National Ass'n Eleventh Annual Convention, Statler Hotel, Boston, Mass.

**September 24-26.** Chief Inspectors Grain National Ass'n Twenty-Seventh Annual Convention, Statler Hotel, Boston, Mass.

**September 24-26.** United States Feed Distributors Seventh Annual Convention, Hotel Statler, Boston, Mass.

## E. A. Grubbs Passes On.

The name of E. A. Grubbs of the E. A. Grubbs Grain Co. was perhaps better known than any other doing a carlot business in cash grain, as a buyer and seller from and to dealers over a wide scope of territory. His numerous friends in the grain and milling trades will regret to learn of his death April 12 at his home in Greenville, O.

Edgar A. Grubbs was born Sept. 2, 1859, near Germantown, O., the son of Daniel and Catherine Grubbs. His boyhood was spent on the home farm. His parents moved to Greenville when he was 14 years of age, shortly after which he entered a leading business college at Cincinnati, where he was given the highest grade ever earned by any student. During vacations he worked in grain offices, so that on engaging in business on his own account in 1884 as a buyer of carlots from country shippers for export, he was immediately successful. For two years he resided at Cincinnati while engaged in handling grain.

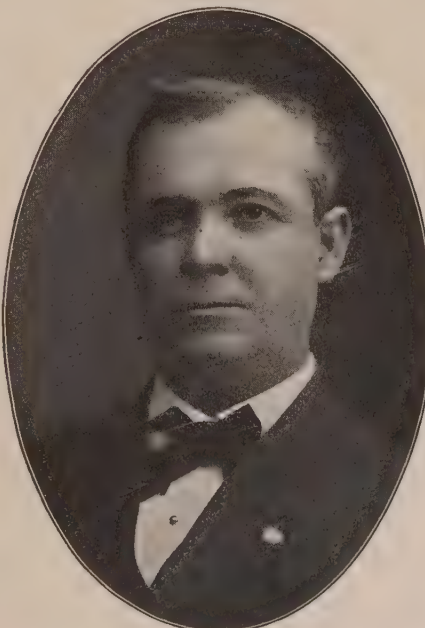
Since 1907 Mr. Grubbs has been engaged in the wholesale business only, as the E. A. Grubbs Grain Co. At one time he operated seven elevators.

He was a member of the Grain Dealers National Ass'n since the date of its organization, having aided to form the Ass'n. He was a member of the Arbitration Com'te of the Ass'n when there was but one com'te for the entire country. He served on the Trade Rules Com'te and helped to formulate the rules out of his wide practical experience. He was a member of the Ohio Grain Dealers Ass'n, Indiana Grain Dealers Ass'n, Ohio Millers State Ass'n, Pennsylvania Millers State Ass'n, Eastern Federation of Feed Merchants, Mutual Millers Ass'n and Cincinnati Board of Trade. He was a charter member of the National Hay Ass'n, and a member of the Greenville Rotary Club, and other societies.

Mr. Grubbs owned and operated the Greenville Feed Co., and later started the Wayne Concrete Products Co., and as a real estate dealer last fall opened Waynewood addition to the city of Greenville, which promises to become a garden spot. He was a director in the Knupp Auto Co., and in the United States Chemical Co.

He was revered by his employees for his kindness and generosity. He was always ready to help promote public interests, his aid being made valuable by the general appreciation that he stood for law and order in all things. An ardent ass'n worker, he did much to improve trade conditions in his territory.

The first Mrs. Grubbs died in 1904, leaving no children, and he is now survived only by the widow and a few distant relatives.



E. A. Grubbs, Greenville, O., Deceased.

"No business is so humble but that it can be made a dignified profession, in the hands of a man of character."

## Letters

[Here is the grain dealers' forum for the discussion of grain trade problems, practices and needed reforms. When you have anything to say of interest to members of the grain trade, send it to the Journal for publication. It may draw out the views of others.]

### Six Slightly Used Harps; Wire Bid.

*Grain Dealers Journal*, America: Can you explain to me why I did not get the March 25 number of the Journal? Isn't it out yet? Or did some infernal gink hornswaggle my paper? If so, I shall have the culprit sentenced to "80 days" in the "greasy spoon" eating house.

Have the whole bloomin' force go on the warpath to look up this important matter!

I am saving each and every number. When I have 50,000 collected, I expect to get a harp as a premium! Nuff set! Do your stuff!

I may need the harp to forget the intense heat. Respectfully and anxiously, Oscar E. Jacobs, Yorkville, Ill.

### Reflecting Protein to Farmers.

*Grain Dealers Journal*: Note that down in Oklahoma the grain dealers are supposedly reflecting the protein premiums back to the farmers, in accordance with various reports set out in the last three numbers of your *Journal*.

Very interesting if true, but I don't believe the grain dealers of Oklahoma are or can do any such thing.

Perhaps I may be behind a bit on my mechanical knowledge, but how in the world can protein content be determined without a complete laboratory analysis?

If the farmers send in a sample of their wheat to be tested, as was suggested they do by E. H. Linzee, how's the grain dealer going to know that's a fair average sample? If I were a grainman in Oklahoma I'd certainly never buy on protein content unless I knew exactly what I was getting for my money. The premiums fluctuate a little too much to permit a man to risk his hard-earned goldbacks.

If this system of grain buying is working out in Oklahoma, I'd like to know how it's being done, for if successful there we'll undoubtedly have some such legislation in our state. —C. D.

### Check "Not Subject to Lien."

*Grain Dealers Journal*: Burton L. Hazen of Marcus, Iowa, inquires in the last number of the Journal with reference to the legal statement on a check to the effect: "Not subject to landlord's lien or mortgage." And you have given him some sound advice in that such a wording does not properly protect him.

Some of the elevator concerns I am acquainted with use the following on the back of their checks:

#### ENDORSEMENT.

I hereby certify that I am the owner of the grain or seed for which this check was issued, and that there are no liens, chattel mortgages or other claims against the grain or seed represented by this check, and by my endorsement of this check, I hereby release the ..... Elevator Co. from any claim or claims that may arise in connection with this transaction.

Owner.

Furthermore, to prevent fraud, on the front of the check is printed: "This check is issued in payment for grain or seeds, and parties issuing or accepting same for any other purpose are guilty of fraud and collusion and liable for statutory penalties."

This stipulation seems worthy of copying and it is my belief should all grain elevator checks carry such information elevator owners would be in a safer position.—Yours truly, Traveler.

### Too Much Credit a Quick Way to Ruin

*Grain Dealers Journal*: Every business, regardless of its character and whether it is owned and operated by one man or a million, has three main divisions. These are production, sales and finance. It is impossible to sell if the production department fails to manufacture or originate material for sale and production avails nothing unless the products are sold. Neither can get along without financing.

In the efficient business these three divisions are kept in balance. The sales department disposes of all that is produced and the production department keeps the sales department busy. There are sufficient funds available to take care of contingencies and to carry purchases and credits.

It is the problem of the management to keep the business in balance. One of the most frequent failings in this connection is the extension of credit to patrons. If not carefully watched it is likely to grow and overbalance the rest of the business, catapulting the entire enterprise into ruin. Easy extension of credit will surely result in heavy loss from bad accounts. The loss does not end there. With its operating capital tied up in credits the business is forced to borrow and pay interest. In the grain business this actually amounts to paying interest on other people's debts, since interest is seldom charged on overdue account.

The cash basis has been found so satisfactory wherever harassed dealers have put it into effect the wonder is that all dealers do not operate in this manner. It is among the leading remedies for a feed, seed or merchandise business sick from overbalance thru failure to safely handle credits.—William J. Hardy.

### Compensation Laws and Elevator Dust.

*Grain Dealers Journal*: Most states, if not all, have "Compensation Acts," that are supposed to protect employees against accidents and even death. Line house agents, managers of farmers elevators and all helpers and other workmen, partners working on a percentage basis, elevator lessees, superintendents, in fact everyone in the elevator game who is not sole owner and sole operator, is a risk to the owner thereof under these "Compensation Laws."

I have often stepped into grain elevators where there were no dust collecting systems to find the dust so dense one could scarcely recognize the operator. Dust everywhere! You could hardly grope your way through the clouds of the impenetrable dust.

Seems to me that if any ill effects resulted from breathing this foul matter, such as worm dust, weevil dust, corn and wheat smut dust, and the fine fiber off of all kinds of grain that goes through a grain elevator, grain elevator owners would be liable under these "Compensation Acts."

I have often remarked that owners of grain elevators should be required by law to install a dust collecting system in all of their grain elevators. It would not only be a protection to themselves and employees, but would lessen, if not obliterate the danger of dust explosion.

I have built a number of grain elevators and installed dust collectors in all but one. I have at times bought grain and managed and operated elevators. I had no trouble in keeping my job, but certainly found I could not continue breathing the dust and keep my good health when I had not protection from dust.—I S. Alton, Elk City, Okla.

**Russia**—The Soviet government announces its program of construction of no less than 85 grain elevators in different parts of the country during the balance of 1928.

### Premiums Paid for Protein.

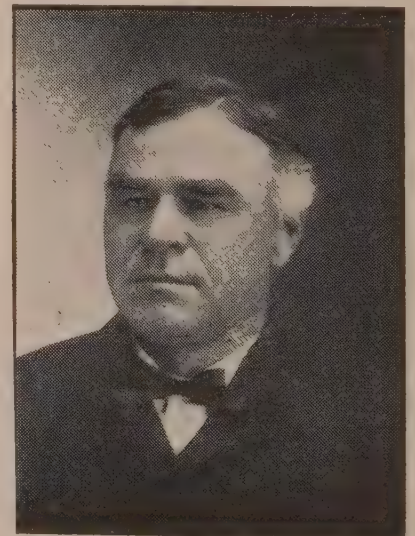
The payment of premiums for wheat testing high in protein is a development of recent years, and altho the percentages of protein found in the wheat in different crop years and in the grain grown in different localities are on record, there is little available information on the cash premiums paid for the superior wheat.

On account of the great interest taken in premiums T. B. Armstrong, assistant chief inspector of the Kansas Grain Inspection Department at Kansas City, Mo., has compiled the following table giving the average premium paid each crop year for No. 2 hard winter wheat containing the various percentages of protein:

Protein.	Cents per bushel—				
	1923-1924	1924-1925	1925-1926	1926-1927	1927-1928
11.00%.....	4	1½	8	4	5
11.50%.....	4	3	9	4	7½
11.80%.....	5	4	9½	4½	9½
12.00%.....	6	5	10	4¾	13
12.25%.....	8	6½	10	5	15½
12.50%.....	11	8	11	5¾	17¾
12.75%.....	13	9½	11½	6	20
13.00%.....	16	11	12	6½	23
13.50%.....	18	13½	13	7	26½
14.00%.....	20	16	14	7½	29½

### Wheat Exporting Countries Watching Farm Relief Legislation.

The McNary-Haugen bill has passed the United States senate. As the vote stood 53 to 23, and as it is practically certain that the bill will pass the House of Representatives by a large majority, it is very probable indeed that the bill will become law, even should the President again veto it, because in that case it would seem that it could be passed over his veto. Other countries can, of course, do nothing in the matter, but if the bill finally passes must wait and see how the plan works out in practice. Large wheat exporting countries, like Canada, cannot, however, view the prospect without some anxiety. If only about 15 per cent of the United States wheat crop is exported, a difference of a few cents per bushel on that small proportion would make little difference in the general results, and the almost inevitable tendency would be to try to clean out the surplus as quickly as possible at whatever it would bring, because the keeping down of stocks at home would make it easier to hold prices at the maximum in the domestic market. Moreover, if the net return to farmers is increased, further wheat production will be encouraged and the exportable surplus of the United States will become larger. The whole scheme seems very artificial.—*Grain Trade News*, Winnipeg.



Peter Lamp, Deceased.  
Pioneer Grain Dealer of Mapleton, Ia.

## Western Grain Dealers Will Meet at Sioux City.

The program of the Twenty-Eighth Annual Convention of the Western Grain Dealers Ass'n at Sioux City, Hotel Martin, May 1st-2nd follows:

### TUESDAY MORNING.

Address of Welcome by the Mayor.  
President's Address, Clifford C. Belz, Conrad, Ia.  
Secretary-Treasurer's Report, David O. Miligan, Des Moines, Ia.  
Appointment of committees.

**TUESDAY AFTERNOON SESSION—1:30 P. M.**  
Hedging, Market Predictions, Etc., I. C. Lyman, Fort Dodge, Ia.

Scales—Repairing, Testing, Etc., H. H. Ingraham, Fairbanks, Morse & Co., Omaha.  
Discussion: Hedging; Scales; Storing Grain.

### TUESDAY EVENING—7:00 P. M.

Banquet in Main Dining Room, Hotel Martin.  
Speaker, Governor W. J. Bulow of South Dakota, and others.  
Dancing, if desired.

**WEDNESDAY MORNING SESSION—9:30 A. M.**  
Feed Grinding and Mixing, S. T. Edwards, S. T. Edwards & Co., Chicago.

Lightning Rod Demonstration by Earnest Rae of Dodd & Struthers Co., Des Moines.

11:30 to 2:00—Luncheon for grain men guests of Sioux City Grain Exchange on the Exchange floor.

### WEDNESDAY AFTERNOON SESSION—2:30 P. M.

Business meeting, election and report of committees.

## Program Kansas Grain Dealers Convention.

The largest turnout in its history is expected at the thirty-first annual convention of the Kansas Grain Dealers Ass'n. All meetings are to be held in the assembly room of the Lora-Locke Hotel, Dodge City, Kans.

As there are only 115 rooms in this headquarters hotel, those contemplating attending are requested to place their reservations as soon as possible, to facilitate placing and accommodating them by the com'te in charge of arrangements.

A JOY RIDE is planned for Thursday morning, May 17, at the close of the convention, a caravan leaving Dodge City, piloted by ex-President Claude Cave, C. C. Isely and others for a trip through the great wheat fields of the Southwest. The local com'te will arrange for automobiles for the accommodation of all desiring to make the trip who do not have their own conveyances. A lunch will be served at noon out in the wheat field country. Those that have never visited this country will be amazed at its bigness, miles and miles of wheat fields without a tree or shrub to obscure the view. Towns with modern conveniences dot the Santa Fe right of way southwest of Dodge.

The com'te wants everyone attending this meeting to have a good time and wants everyone to attend all sessions in order that all may acquire information that will be a benefit in his business.

All dealers in the state are invited to this convention, whether members or not. Those who attend and are not members will feel that the accomplishments of the organization are a benefit.

### TUESDAY, MAY 15, 8 A. M.

Registration, Lobby Lora-Locke Hotel, "Rex" in charge.

Meeting called to order by President Rhodes, Colony, 10 a. m., Assembly Room, Lora-Locke Hotel.

Song service, led by Mr. C. L. Parker and Mr. Davidson.

Address of Welcome, J. J. Weigle, Dodge City.

Response, H. B. Wheaton, Hugoton, vice-pres., Kansas Grain Dealers Ass'n.

President's Annual Address, H. R. Rhodes, Colony.

Secretary's Annual Report, Ed. J. Smiley, Topeka.

Appointment of Com'tes by President Rhodes.

Tuesday, May 15, 2 P. M.

"Forecasting by Department of Agriculture," Charles Quinn, sec'y, Grain Dealers National Ass'n.

"Effects of the Growing Mill Industry in the Southwest on Kansas Wheat Prices," Prof. R. M. Green, Manhattan, Kan.

Tuesday, May 15, 7 P. M.

"The Freight Rate Situation as it Affects the Kansas Grain Interests," Clyde M. Reed, Kansas City.

Wednesday, May 16, 9:30 A. M.

Address—Tom B. Armstrong, First Assistant, Kansas State Grain Inspection Department.

"Grain Elevator Bookkeeping and Accounting," F. H. Stapleton, Topeka.

"McNary-Haugen Bill a Calamity to Agriculture," C. C. Isely, Dodge City.

Wednesday, May 16, 2 P. M.

Discussion on the following subjects:

"Do You Favor Inspection of All Grain by the Federal Government Instead of State Inspection Under Government Supervision?" and "Cost of Operating Elevators in Kansas."

Secretary's Financial Report.

Report of Auditing Com'te.

Report of Resolutions Com'te.

Election of officers.

Wednesday, May 16, 7 P. M.

Banquet, Dining Room, Lora-Locke Hotel, tickets to be purchased at time of registration.

Thursday, May 17, 8 A. M.

"Covered Wagon" leaves for "Caravan" tour of the Wide Open Spaces.

## Illinois Dealers at Joliet May 10-11.

The tentative program of the annual convention of the Illinois Grain Dealers Ass'n to be held at Joliet, May 10-11, follows:

Thursday, 10 A. M.—B. P. O. E. Building.

Reception and Community Singing.

Invocation—Rev. Father Hennessy, Pastor St. Mary's Church.

Address of Welcome—Hon. George F. Sebring, Mayor of Joliet.

President's Address—A. C. Koch, Breese.

Secretary's Report—W. E. Culbertson, Delavan.

Treasurer's Report—M. J. Porterfield, Murook.

Report of Finance Committee—T. E. Hamman, Arcola.

Report of Executive Committee—E. M. Wayne, Delavan.

Appointment of Committees.

Thursday, 2 P. M.—B. P. O. E. Building.

Community Singing.

What Is Wrong with Country Grain Dealers—V. E. Butler, Indianapolis.

Grain Dealers National Ass'n—Chas. Quinn, Sec'y, Toledo.

The U. S. Grain Standards—W. H. McDonald, Supervisor in Charge Chicago District.

Loss, Damage and Overcharge Cost Money—W. S. Braudt, Chicago.

Thursday, 6:30 P. M.—Chamber of Commerce.

Banquet.

Toastmaster—Hon. Thos. F. Donavin.

Address—Hon. Floyd E. Thompson, Justice of the Supreme Court of Illinois.

Music and Entertainment.

The ladies are cordially invited.

Friday, 9 A. M.—B. P. O. E. Building.

Grain and Government—Frank J. Delany, Chicago.

Keeping Quality of Grain Harvested with Combines—Lacey F. Rickey, University of Illinois.

Address—J. A. Schmitz, Weighmaster, Board of Trade, Chicago.

Problems of the Country Dealer.

Reports of Committees.

Election of Officers and Directors.

The visiting ladies will be entertained at a theater party Thursday afternoon, May 10, at Joliet's new million dollar theater.

Friday afternoon the delegates and visiting ladies will be taken thru the Illinois Northern Penitentiary at Statesville, and the local committee guarantee not only to take them in but to bring them out.

No matter what your competition may be paying, don't be stampeded into paying a higher price than the market warrants. It may be all right to trust to providence to help you out of your mess, but it is an unsafe, foolhardy proposition.—*Grainmen's Mirror*.

## New Executive Secretary St. Louis Merchants' Exchange.

Claude B. Rader of Wichita, Kan., has just been appointed executive secretary of the St. Louis Merchants Exchange. He will take up his new duties about June 1.

He leaves a similar post with the Wichita Board of Trade to accept this new distinction. Prior to coming to Wichita as secretary and traffic manager, which position he took on January 1, 1926, Mr. Rader was for five years the secretary and traffic manager of the Denver Grain Exchange, starting there in 1920.

Mr. Rader has always been active in traffic and exchange affairs. So it was quite natural for the Denver Grain Exchange to seek him out in 1920, when they planned and carried out a program of expansion and aggressiveness and a movement to broaden the market.

St. Louis is Mr. Rader's former habitat, for over a decade having been located there with the Mobile & Ohio R. R. and the Louisville & Nashville R. R. before going to Denver.

While in Denver, Mr. Rader was also secretary of the Denver Traffic Club and chairman of the Grain and Grain Products Com'te of the Western Regional Advisory Board of the American Railway Ass'n.

Mr. Rader succeeds Charles Rippin, who resigned a number of months ago.

A correct transmission equipment is manufactured for practically every driving condition encountered in the grain trade and, irrespective of the first cost, an earnest endeavor should be made to use the method that is best suited.

Wheat ground during February, 1928, by 1041 mills, totaled 40,908,004 bus., which was 55.3 per cent of total capacity operated. These 1,041 mills were operated by 865 concerns, of which number of mills, 87 with a daily capacity of 33,366 barrels were idle during the month. Of these 865 concerns, 844 which were in operation in 1925 produced approximately 91.5 per cent of the total wheat flour (114,689,930 barrels) reported at the biennial census of manufacturers for that year. During February, 1927, 1,051 mills ground 39,354,388 bus. of wheat which was 53.3 per cent of total capacity operated.



C. B. Rader, new Executive Sec'y St. Louis Merchants' Exchange.

## Crop Reports

Reports on the acreage, condition and yield of grain and field seeds, as well as on the movement to country markets, are always welcome.

Hastings, Neb., Apr. 11.—Our growing wheat crop in this territory looks fine, altho we will need moisture soon.—Crowley Grain Co.

Clifton, Kan., Apr. 10.—Wheat condition extra good with ample moisture. Oats coming fine. Good sub-soil moisture.—Wyman-Smith Grain Co.

Chattanooga, Okla., Apr. 10.—Had a nice shower of rain last night, but we are needing lots more, as there is no underneath moisture.—P. A. Cope.

Tipton, Ind., Apr. 17.—There will be little wheat to handle on account of a large acreage being winter killed. However, we are expecting a bumper crop of oats.—Tipton Mfg. Co.

Berwick, Kan., Apr. 10.—Wheat has made large growth and conditions look excellent. Oats are up and the cold weather and hard freeze are thot to have hurt them some.—Noah Edelman.

Belmond, Ia., Apr. 10.—There is quite a lot of 1927 corn still in cribs, very wet and not fit to shell. When shelled it will be from 15% to 30% damaged.—T. B. Champlin, mgr., Hynes Elvtr. Co.

College Corner, O., Apr. 13.—Prospects for a wheat crop are very poor. Will have 50% of a normal crop, if weather conditions are at their best. The remainder was winter killed.—O. P. Davis & Son.

Ravenna, Neb., Apr. 21.—Our prospects for a wheat crop in this territory are small. We are in need of moisture, but even with favorable weather from now on our wheat will not make over a 60% crop in my estimation.—Alden Novak.

Bicknell, Ind., Apr. 15.—Wheat has the poorest prospect ever recorded in this section. Looks like 60% abandonment and not over 60% condition of the crop that will be left to cut. Our corn was a complete failure.—O. L. Barr Grain Co.

Rockford, Neb., Apr. 17.—Wheat prospects are excellent, good stand, good color and plenty of moisture. Large acreage of oats sown, but crop has been frozen twice, and the outcome is doubtful. Corn ground is ready for planting with average acreage.—A. L. Burroughs.

Belmond, Ia., Apr. 10.—There is no wheat grown in this section. There are some few patches of rye, which look good. Think there will be a 20% increase in barley sown this year over last. Eight or nine inches of snow have stopped all field work.—T. B. Champlin, mgr., Hynes Elvtr. Co.

Byron, Okla., Apr. 18.—This section of Oklahoma has about 95% average of wheat for April. In fact, few times have we had wheat that was more promising, but oats are backward and green bugs are showing their effects on the crop. The alfalfa crop is cut three-fourths by green bugs and the freeze.—O. E. Allen, Byron Grain Co.

Springfield, Ill., Apr. 18.—Good rains were general during the week, with 1 to 2 inches of snow in the northern counties. Plowing was interrupted in some sections. Spring-planted grains, including clover and young oats, were killed or damaged over much of the northern and central areas.—Clarence J. Root, meteorologist.

Fort Worth, Tex., April 21.—There is no question but what considerable damage, due to high winds drying out the ground, lack of moisture, and winter killing, has been done. Most of this damage however, has occurred in the Panhandle, south of Amarillo, and to some extent down the Denver as far as Vernon, which covers a good part of our best wheat territory. Our shipper at Seymour told us on April 20 that if he didn't get rain this week that they wouldn't have any wheat, but it looks like they will get rain tonight. Central Texas has plenty of moisture, but due to unsatisfactory weather, freeze, etc., it is questionable how many oats they will raise. We expect somewhat of a crop.—Royce T. Dorsey, Fort Worth, Tex.

Springfield, Ill., Apr. 12.—April 1 condition of winter wheat in Illinois was reported at 37% of normal, compared with 83% a year ago and the 10-year average of 84%. This is the lowest April 1 condition in 30 years. Loss of acreage has been extremely heavy in the southern or soft-wheat areas, also in the central and east central areas. Reports from these areas of 50% to 100% losses are common. Conditions are somewhat more favorable in the western counties with the smallest damage reported in the northwestern section of the state.—A. J. Surratt and R. K. Smith, agricultural statisticians.

West Lafayette, Ind., Apr. 10.—Soybeans during 1927 outside the seventh district made a little better than average yields and with the larger acreage the production approached that of 1924, the largest for the state. The clover seed acreage was large and the crop good. Acreage was three times last year and production seven times as large. In 1927 75,000 acres were sown to soy beans with a production of 975,000 bus., compared to 42,000 acres in 1926, which produced 529,000 bus. In 1927 210,000 acres were sown to clover seed and produced 252,000 bus., compared with 70,000 acres in 1926, which produced 35,000 bus.—Miner M. Justin, agricultural statistician.

Fort Worth, Tex., Apr. 10.—Present acreage of oats about 85% of normal and the wheat acreage about 95% of normal, corn 2% increase in central Texas. Very few oats being sown and from present acreage crop will only be 25% of normal. Mr. Taylor of Taylor Grain Co., Van Alstyne, Tex., reports: Wheat acreage increased fully 100%, possibly 20% winter kill remaining around 85% in condition. Homer Rogers of Doggett Grain Co., at Dallas estimated oat acreage to be about 85% of normal. Mr. Childress of Childress Grain & Commission Co., Temple, reports: Corn acreage 110% of normal, conditions and prospects never better for corn crop in Central Texas. Mr. Vaughn of the Vaughn Grain Co., Ballinger, reports that there will be a big acreage in milo.—H. B. Dorsey, sec'y Texas Grain Dealers Ass'n.

Lansing, Mich., Apr. 11.—The April 1 condition of Michigan winter wheat was, except for 1918, the lowest on record for this date, and the condition of winter rye was the lowest on record for April 1. Both wheat and rye started the winter in good shape, as was shown by the December, 1927, condition of 94 per cent for wheat and 92 per cent for rye, but snow did not cover the ground for long enough periods to afford much protection, and there was too much successive freezing and thawing during February and March. In some sections the fields were also damaged by ice cover for several days. The April 1 condition of winter wheat was 74 per cent compared with 86 per cent last year and the ten-year average of 84 per cent. The condition of rye was 79 per cent of normal, which was seven points below last year and nearly eight per cent below the average for April 1.—Herbert E. Powell, commissioner of agriculture, and Verne H. Church, agricultural statistician.

Kansas City, Mo., Apr. 14.—Drawing a line from the Southeast corner of Clark County in Kansas to the northeast corner of Custer County in Nebraska, there are about six million acres of wheat, out of a total of sixteen million acres, of which 4,600,000 acres are in Kansas, with an average condition of about 66%. Right immediately east of this line, or in the central third of Kansas, which is really the main wheat belt, there are about 7,400,000 acres of wheat which is in a much better condition. The condition, represented by the Government figures of Apr. 1, in Kansas has been materially improved by the additional rains, as shown by bottom figures indicated by a star where shown, several counties not having reported. The encouraging feature of the Kansas condition is, there has been an improvement of 2% in the condition of the growing wheat since December. In previous years, when there was an increase in percentage of condition between December and April, there has been more than an average wheat crop raised. The condition shown in Northwest Kansas applies also to Southwest Nebraska and Eastern Colorado, and there are probably in the neighborhood of three and one-half to four million acres of wheat that will be abandoned. That section of the country is two or three weeks later than the central section of Kansas, as far as season is concerned, and consequently some of the acreage in that territory which now looks unpromising should not be considered as abandoned at this

writing. In 1914 Kansas raised about 180 million bushels of wheat on nine million acres. They have more acres than that now in a promising condition, and it is a matter of development and climatic conditions from now on as to what the result will be this year.—Shannon Grain Co.

Madison, Wis., Apr. 17.—Wisconsin crop reporters indicated that on April 1 this year the condition of the winter wheat crop was 73 per cent of normal compared with 89 per cent for last year and a 10-year average of 86 per cent. Rye likewise has suffered considerably—the condition being reported at 78 per cent of normal on April 1 this year, as compared with 90 per cent for last year and a 10-year average of 89 per cent. Winter damage appears to have been general to these two grain crops. This will probably cause the abandonment of a number of fields and planting them to other grains. Altho it is too early to know fully the extent of the winter damage, it appears to be somewhat more severe in the southern part of the state, which was entirely free from snow nearly all winter. The acreage of winter wheat and rye planted last fall probably was somewhat below the previous year, and if the winter killing is general the acres harvested this year will be considerably less than for 1927, when a splendid crop of both winter wheat and rye were produced in Wisconsin.—Walter H. Ebling, agricultural statistician.

Minneapolis, Minn., Apr. 18.—Unseasonably cold weather during the past week has been rather unfavorable for farm operations in the Northwest. Freezing temperatures, with snow, have been general throughout the entire territory, retarding farm work, and in some sections keeping the farmers out of the fields the greater part of each day. Our correspondents in Southern Minnesota and South Dakota advise that wheat seeding is nearly finished, and possibly 75% of the oats and barley is in the ground. Some of the early sown grain has already sprouted, but no damage from freezing has been reported up to this time. In the south central part of North Dakota seeding of wheat is about 60% completed, and some coarse grain has been sown. In the eastern part of the state and the Red River Valley districts of Minnesota, 50% to 75% of the seeding is done. In Northwestern North Dakota and Montana spring work has just started. Reports from the winter wheat sections of Minnesota and South Dakota are very disappointing. The damage from winter killing, in some districts, is estimated as high as 50%. Farmers are plowing up many fields and re-sowing to oats or barley. This will undoubtedly cause an unexpected increase in coarse grain acreage.—Van Dusen Harrington Co.

Jefferson City, Mo., Apr. 10.—Missouri wheat on April first was 56% of normal condition, which is the lowest since April wheat condition records began in 1879, with other low years being 1897 at 60% and 1917 at 62%. Winter kill is severe in nearly all sections, and will probably run from 25% to 35% of the total fall seedings, comparing with 17.5% abandonment in 1910; 23.2% in 1912; 20% in 1916; and 22% in 1917. Prospects are for the greatest abandonment in twenty-five years. The early sown wheat generally survived the freezes of winter, but a large part of the late seedings has been winter killed, and, in some localities, both the late and early sown crops are so injured that farmers do not feel justified in permitting many of the fields to go to harvest. Late seedings were soft and had not hardened so that freezes of middle December were very injurious, and were followed by hard freezes and lack of moisture in January, February, and the first of March, resulting in heavy losses. Wheat had little snow covering during the winter, and needed moisture throughout the winter. Plant growth was slow during March, for, while temperatures were right, wheat needed rain, but lack of moisture was relieved in the first week of April. A large part of the wheat frozen out has been seeded to oats, some barley, and spring wheat, and the balance may possibly go into corn, soybeans, or cowpeas. This situation has upset farmers' planting intentions, as made in late winter. Missouri wheat production for 1928 from present indications will be 18 million to 20 million bushels, depending upon spring and early summer weather conditions. Oats were planted early and seeding was completed in March. A large acreage was sown in fine condition. Some sections needed more moisture for best germination in March.—E. A. Logan and Jewell Mayes, Bureau of Agricultural Economics.

Topeka, Kan., Apr. 11.—Kansas wheat condition, as of April 1, is rated at 77% of normal, compared with 79% a year ago, 75% last December, 87% two years ago, and a ten-year average on April 1 of 77.4%. This is an improvement of 2 points in condition since December 1. Wheat condition was uniformly close to or above the state average on April 1 in all the counties of the eastern and central thirds of Kansas and in most of the counties of the southwest. In the west central and northwestern counties conditions were generally low and a heavy abandonment is already well established in that portion of the state. Moderate abandonment is probable in many eastern and central counties due to winter killing. Rather heavy loss in acreage is probable in several southwestern counties on late planted and poorly prepared fields. The menace from Hessian fly is generally considered less than the average of recent years, altho it is not to be ignored in many central counties. Present moisture conditions are quite satisfactory, although much of the western third of Kansas is deficient in subsoil moisture. No estimate of abandonment will be made until May 1. The experience of the past ten years is that for every point the April condition departed from normal we have had a May 1 estimate of abandonment of about .65%. Since the present April condition departs 23 points from normal, we may speculate that from average experience over a ten-year period we may expect about 15% abandonment this year. The actual outcome may be either greater or less than this amount, depending on weather conditions and insect damage in the next thirty or forty days. The estimated acreage planted last autumn was 13,041,000 acres. Such an abandonment as suggested above would leave 11,085,000 acres for harvest this summer. But it is to be remembered that such a speculation is predicated on this year's conditions and abandonment being average, and that any given year is seldom average, either in weather and insect controls or in final outcome. April conditions nearest to the present rating were 79% in 1927, which resulted in a May estimate of 13% abandonment, but a final abandonment of 20% due to droughty May, and an April condition in 1920 of 73% which resulted in a May estimate of 16% abandonment and a final estimate of 12.1% abandonment.—State Board of Agriculture.

Latvia.—The Russian Soviet Government plans to manufacture \$62,500,000 worth of agricultural machinery to be sold to the peasants during the present fiscal year as the result of peasant protest against ever increasing taxes and consequent sharp decreases in the area under cultivation. This program arises out of the necessity of stimulating agricultural production, which the disgruntled peasants have sharply curtailed, and upon which the government depends in a great part for whatever economic stability it enjoys.

### Daily Closing Prices.

The daily closing prices for wheat, corn, oats, rye and barley for July delivery at the following markets for the past two weeks have been as follows:

	Apr. 10.	Apr. 11.	Apr. 12.	Apr. 13.	Apr. 14.	Apr. 16.	Apr. 17.	Apr. 18.	Apr. 19.	Apr. 20.	Apr. 21.	Apr. 23.	Apr. 24.
<b>WHEAT</b>													
Chicago	142½	147½	148½	150½	153½	155½	153½	157½	158½	155½	154½	155	156½
Kansas City	134	138½	139½	141½	144½	146½	144½	148½	150	145½	145½	145½	147
St. Louis	142½	147½	148½	150	152½	155½	153½	156½	158½	154½	153	154½	155½
Minneapolis	137½	143½	143½	144½	148	150½	147½	149½	151½	147½	146½	148½	149½
Duluth (spring)	135½	139½	140½	142½	142½	144½	141½	144	147½	139½	140½	141½	142½
Winnipeg	147½	151½	152	153½	156	157½	154½	156½	156½	153	152½	153½	154½
Milwaukee	142½	148	148½	150½	153½	156	153½	157½	159	155½	154½	155½	.....
<b>CORN</b>													
Chicago	101½	103½	102½	102½	104½	104½	105½	107½	110½	108½	109½	109½	109½
Kansas City	94½	96	94½	95½	96½	97½	97½	100	102½	100½	101½	101½	102½
St. Louis	104½	105½	104½	105	106½	107	107½	109½	112	110½	110½	111½	111½
Milwaukee	101½	103½	102½	102½	104½	105	105½	108	110½	108½	109½	109½	.....
<b>OATS</b>													
Chicago (new)	51½	51½	51	51½	52½	54½	53½	55½	57½	56½	54½	54	55½
Minneapolis	51½	52½	51½	52½	53	54½	55½	57½	58½	56½	56½	56½	58
Winnipeg	65½	66½	65½	64½	66½	67½	67½	68½	68½	67	67½	68½	69½
Milwaukee (new)	51	51½	51	51½	52½	54½	53½	55½	57½	56	54½	54½	.....
<b>RYE</b>													
Chicago	116½	119½	119½	120½	122½	126½	124½	126½	127	123½	124	126	128½
Minneapolis	114½	116½	112½	114	115½	119½	119½	120½	120½	117	118	119½	121½
Duluth	113½	116½	118	121	121	124½	123	124½	124½	121½	122	123½	125½
Winnipeg	117½	121½	120½	122½	126	129½	126	127½	128½	124	125½	125½	129½
<b>BARLEY</b>													
Minneapolis	81½	82½	82½	82½	83	83½	83½	84½	85½	84½	83½	83½	84½
Winnipeg	90½	91½	90½	91½	92	93	92½	93½	93½	92½	92½	92½	93½

## Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Bicknell, Ind., Apr. 15.—We are shipping in corn and oats to sell to the farmers to make new crop on.—O. L. Barr Grain Co.

Rockford, Neb., Apr. 17.—No old wheat in farmers' hands. About 40% of corn is on farms in strong hands, will not move before August. Farmers are holding surplus oats.—A. L. Burroughs.

St. Joseph, Mo., Apr. 10.—Receipts at this market during the month of March, compared with those in March, 1927, in bus., were as follows: Wheat, 501,200-158,200; corn, 1,281,000-504,000; oats, 178,000-128,000; barley, 1,750-1,750; kafir, 1,500-....; milo, 3,000-4,500. Shipments similarly compared were: Wheat, 158,200-84,000; corn, 1,029,000-421,500; oats, 28,000-14,000; rye, ....-27,000.—N. K. Thomas, sec'y, Grain Exchange.

Fort Worth, Tex., April 21.—Local receipts here of everything in the last few days have practically stopped. There is no wheat left in Texas, except in the larger storage elevators, and they have good stocks. The mills are grinding down on their very small supplies, hoping that some will show up somewhere later. There is some milo and kafir left in the country, and also stocks here; but with cash corn bringing from \$1.10 to \$1.20 there is no reason why milo should sell around \$1.75 to \$1.80.—Royce T. Dorsey, Dorsey Grain Co.

"Value of Plowing for Controlling European Corn Borer Tested," by C. B. Dibble (Michigan Sta. Quart. Bul., 10 [1927], No. 2, pp. 58, 59, fig. 1).—In this account reference is made to an investigation of the value of plowing infested fields with heavy and light soil for the control of the European Corn Borer, 30 cages having been placed in 6 groups of 5 each in plowed fields that had produced highly infested corn. In the areas used the surface debris had been hand picked immediately after plowing, the cages being placed on the fields in from 10 days to 3 weeks thereafter at the time when pupation was under way. Observations were made either daily or on alternate days from June 20 until the moths were through flying on Aug. 1. In no case during the 40 days in which the cages were under observation were corn borer moths discovered, indicating that plowing is an effective means of destroying borers.

## Barley a Good Substitute for Corn Growing.

Barley has so many advantages over corn and oats that grain dealers are safe in recommending this crop to farmers who have a rich soil.

Barley has given a higher cash value than oats in Wisconsin field tests. The difference in favor of barley was \$3.69 per acre. To the farmer growing a crop for its feeding value it is interesting to note that barley produced per acre 276 pounds more of total digestible nutrients.

Barley has the advantage over corn of being ready for fall feeding several weeks earlier than corn; and to the grain dealer this means a better distribution of the marketing period than is the case where corn is the main crop and nothing can be moved in the fall until the corn has been dried out. To the extent that barley is substituted for corn, the grain dealer is saved the labor and delay incident to shelling and the problem of disposing of the cobs.

Barley is not seriously affected with diseases and pests, neither rust nor smut doing much damage. In those limited areas of Ohio and Indiana and Michigan where the corn borer is thought to be a menace, the growing of barley enables the farmer to circumvent the insect, which does not attack barley.

The corn borer thrives in the damp air of the Great Lakes region, particularly in the moist atmosphere of Southern Ontario, the only part of Canada where it is sufficiently warm to grow corn. This cooler and more equally moist atmosphere is naturally adapted to barley growing, so that farmers in the eastern part of the corn belt can grow barley profitably, while leaving the planting of corn to their brothers in Iowa, Missouri and states west.

Oderbrucker barley, a 6-rowed variety, has been found by Prof. R. A. Moore of the Wisconsin Exp. Sta., to be the best suited to the upper Mississippi Valley and surrounding states. Prof. Moore says:

"Barley is a spring crop and relatively easy to grow. The time of planting should be a little later than oats, to be safe from the stripe disease. Barley sowing should immediately follow oats seeding. The rate of seeding should be from one and one-half to one and three-fourths bushels per acre. Seldom as much as two bushels per acre should be sown, as too heavy seeding reduces both yield and quality."

Hamburg (Germany) Grain Dealers Ass'n are again clamouring for better storage facilities for their port, desiring that ocean-going vessels be enabled to unload direct into tide-water elevators.

## Russia Regaining Agricultural Position.

Russian agricultural production is now nearly back to the level which obtained in the same territory immediately preceding the war, and in some crops, such as corn, potatoes and oilseeds, have exceeded this level and exceeded production in the former Russian Empire, according to a special report on Russian agriculture issued by the Foreign Service of the Bureau of Agricultural Economics.

Russian exports, however, have not kept pace with production, shipments of all the principal commodities being in general less than half of pre-war exports. The decrease in exports of bread grains is attributed to an increase in domestic consumption, and United States grain has thus been relieved of competition from a formerly significant source. A decrease in feed grain exports is probably accounted for, by a decreased feed grain production and by larger numbers of cattle and hogs as compared with pre-war. There has been a shift in feeding practices away from barley to corn, and apparently also to millet; and oilfeeds and cake are apparently used more extensively.

# Advantages of Enclosed Motors for Grain Elevators

By C. W. Gustafson, Chief Engineer Mutual Fire Prevention Bureau

Electric motors in grain elevators, flour mills, and feed mills are called upon to operate under exceptionally severe conditions due to the presence of dust in varying quantities in such plants. In the interest of economy in the utilization of space and the elimination of as many driving connections as practicable we find that motors are usually located very near the driven machines. Dust conditions near those machines are at their worst, and consequently the motors are often in the most unfavorable locations.

The ordinary open squirrel cage motor has for years been the standard unit where electrical power was used. While the open motor is comparatively safe if kept clean, properly maintained, and correctly controlled and protected, we find that the record of the open motor in the dusty industries with which we are concerned is poor. This is due largely to the fact that it is next to impossible to keep an open motor clean, particularly those installed in locations such as the cupolas, basements, and out-of-the-way places.

Attempts are made in some plants to maintain a regular schedule for cleaning motors by designating some man to blow the dust from the windings at least once each week, often going to the extent of running compressed air piping to a point near the motor. Others have built fire retardant enclosures around the motors, which while having considerable merit, are in many cases little more than makeshifts.

The deteriorating effect of dust on the windings of a motor is well recognized. When this dust is mixed with oil and grease so often present in and around motors, the breakdown of the windings is greatly hastened. Add to this the blanketing effect of an accumulation of dust in the ventilating ducts of the motor and we have a perfect setting for a motor burnout. That such burnouts do occur is a known fact and in few cases is the damage confined to the motor itself, but is communicated to the plant with loss ranging from the burning of the drive belt and some of the surrounding wood work to complete destruction of the plant. Unfortunately this usually happens during the busiest season when the elevator is needed to take care of the crop. Consequently there is not only the loss in property to consider, but the loss in business as well.

**Motors with Vent Pipes:** Realizing the problem which was presented in correctly motorizing grain elevators and allied establishments, various motor manufacturers applied themselves to its solution with the result that about four years ago the totally enclosed pipe

ventilated motor was developed and placed on the market. This motor was so constructed that all of the windings and working parts were completely enclosed in a cast iron or steel shell with openings being provided for the attachment of vent pipes leading to the outside of the building in order that nothing but clean air be supplied for the ventilation of the motor.

This was a decided step forward and was hailed with great delight by the grain trade, and rightfully so, for with the proper installation of the vent pipes it was possible to install the motor in the dustiest place in the plant and yet be assured that the inside of the motor would be virtually free from dust. However, it was often difficult to install vent pipes in such a way that they would not be in the way of moving belts, machinery, or operations, and in many cases it was impossible to reach a source of clean air without an unduly long run of piping. Instances were also reported where vent pipes had been improperly attached to the motor and successive lengths of piping improperly joined together, as well as cases where the vent pipes had been knocked down through carelessness or accident and never replaced.

Such abuses destroyed the protective features of the motor and produced a condition which was worse than if the motor had been of the open type for the condition of the inside of the motor could not be seen. With motors of the pipe ventilated type it is therefore extremely important that both the inlet and outlet vent pipes be securely attached to the motor; that successive sections of piping be riveted and soldered together, and that they lead to the outside of the building to a source of clean air.

**Enclosed Ventilating Motors:** The objections which were raised from many sources to the pipe ventilated motors led manufacturers to bring out still another type of motor designated by a variety of names including enclosed-fan ventilated, enclosed fan-cooled, air jacketed, enclosed self-ventilating, and enclosed externally cooled. While referred to by this variety of terms they are all of substantially similar construction and principle of operation. In these motors we have the windings and working elements of the motor enclosed within a tight metal shell, dust tight in itself.

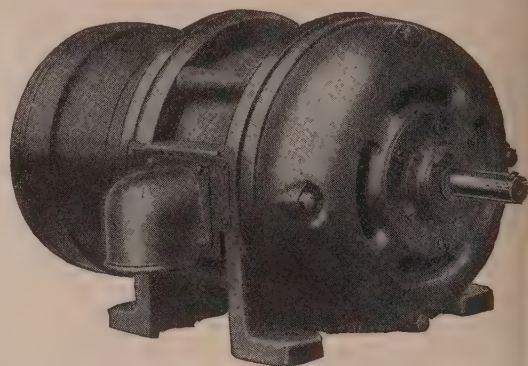
Over this inner shell is an outer shell or shield with a space between them through which air is forced by a fan mounted on the shaft of the motor outside of the inner shell but inside of the outer end shield of the motor. The capacity of this outer fan is great enough so that it is impossible for dust to lodge in the ventilating passages, and thus prevent the proper dissipation of heat from the motor. This type of motor requires no vent pipes, a distinct advantage from the standpoint of saving in space and expense in installing and maintaining vent pipes. The application of this type of motor has been so general that now practically all of the manufacturers build and regularly stock them.

**The correct type of motor for the grain trade:** It being a fact that this new type of motor is available in the regular squirrel cage type, the new self-start squirrel cage, the slip ring, the single phase, and the direct current types, the development is indeed an important one for the grain elevator operator.

It is obvious that this new type of motor offers distinct advantages from the standpoint of fire prevention. In the first place the burnout of motors from dust accumulations in the windings and the breakdown of windings caused by the deteriorating effect of dust and oil on the windings is eliminated, for dust cannot enter the shell enclosing the windings.

It does not mean that the motor cannot burn out for there are other causes which may result in a motor burnout such as overloading, failure of bearings, and single phasing. Proper control and protective devices for the motor eliminate the first and last of these as serious considerations and the fact that all of this type of motor now on the market are of the ball or roller bearing type render bearing failure out of the question. However, if a burnout from these causes should occur the fire would not communicate to the balance of the plant but would be confined within the inner shell of the motor. Recognizing the value of this type of motor as a fire prevention measure the mutual fire insurance companies accept these, and the properly installed pipe ventilated motors, as standard, and when properly wired with conduit with correct control and protective devices grant a liberal credit in the fire insurance rate.

**Reduced Cost of Maintenance:** Equally important to the elevator or mill owner are the advantages offered by this motor in the



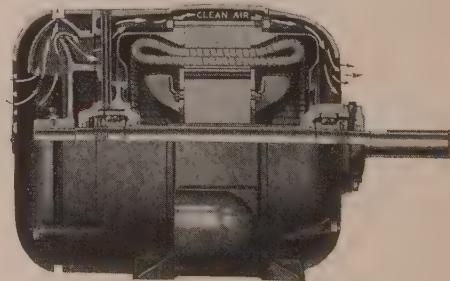
Totally Enclosed, Fan-Cooled, Pipeless, Single-Phase General Electric Motor.

interest of a greatly decreased cost of maintenance. It eliminates the necessity for detailing a man to blow out or clean motors. It eliminates the need for compressed air piping to motors, and the need for purchasing blowers or other equipment for blowing out motors. It eliminates the removal of and sending motors to the repair shop for thorough cleaning and renewal of insulation. It eliminates the necessity for rewinding motors due to the breakdown of the windings which so often occurs during the midst of the busy season. Finally, the expense of oiling and greasing is reduced to the lowest minimum as all of the motors now on the market of this type are equipped with ball or roller bearings which need to be oiled or greased only about twice each year. As an example of the saving in motor maintenance, we know of one case, a manufacturing plant, in which a large number of enclosed motors were installed to replace the same number of open motors. Their motor maintenance expense was reduced by 60 per cent, a very appreciable amount.

With all of these advantages the enclosed

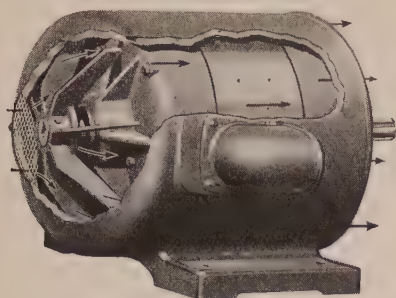


Fairbanks-Morse Clean-air-jacketed Ball Bearing Motor with Totally Enclosed Windings, Fan Cooling and Air Cleaning Features.



Sectional View of Fairbanks-Morse HAC Motor Showing How the Windings Are Totally Enclosed with the Spun Copper Shields and Indicating How the Shrouded Fan Throws Dirt Out by Centrifugal Action.

ventilated motor appeals as being the ideal motor for the grain industries. The cost is but slightly more than that of the open motor, an



Cut-away View Illustrating Scheme of Ventilating Louis Allis Motor.

item which is greatly outweighed by the superiority of the enclosed type over the open.

## District Meeting at Beatrice, Nebr.

Twenty-six grain men from eastern and central Gage County met at the office of the Scoular-Bishop Grain Co. in Beatrice, Neb., the evening of April 12. The meeting was under the auspices of the Kansas Grain Dealers Ass'n.

A. L. Burroughs of Rockford, Neb., was chairman. Robert Pease of the Pease Grain & Seed Co., Beatrice, gave an interesting talk on seeds as a sideline for the country elevator. Geo. Sprague, who is head of a local electrical company, told how to care for motors in elevators. A general discussion of questions of interest to the trade followed the addresses. This was followed by refreshments and the meeting was declared a success both from the standpoint of helpful advice received and the feeling of good will promoted between competitors.

The following firms were represented: Black Bros. Mill, Beatrice; A. L. Burroughs, Rockford; Cramer Grain Co., Firth; Cortland Grain Co., Cortland; Equity Grain Co., Wymore; Farmers Elevator Co., Crider; Farmers Elevator Co., Filley; Farmers Elevator Co., Firth; Farmers Elevator Co., Pickrell; Farmers Elevator Co., Hoag; Farmers Elevator Co., Ellis; Geiger Grain Co., St. Joseph, Mo.; Liberty Grain Co., Liberty; Pease Grain & Seed Co., Beatrice; Scoular-Bishop Grain Co., Beatrice; Updike Grain Co., Wymore.

## Bringing Old Elevators Up to Date.

BY CARL YOUNGLOVE

Of Younglove Construction Co.

In regard to improvements which should be made to modernize old elevators and the same suggestions would of course apply to building new elevators:

As much of the grain grown west of the Mississippi is being hauled by trucks, big trucks, we find that many elevators are unable to take care of the business. Their driveways and scales are not ample to handle the heavy loads, hence competitors even ten miles away get business which otherwise would go to the grain dealer whose elevator was within short hauling distance.

This means that the elevator operator who wants the business must see that his driveway approach and exit footings are of concrete, and that the approach and exit is well and ruggedly built, and that he has a truck dump and scale which will handle the large truck loads.

In approximately all territories there are a great many trucks hauling 225 to 250 bushels to a load. We are now installing several 15 ton scales. The 15 ton truck scale should be placed on solid concrete foundation at both ends, the scale to be 18 ft. long. At many points the elevator owners install iron grates for convenience in dumping. These grates should be 12 to 15 feet long, or three doors, placed so as to enable the operator to handle any length of truck.

In building a new elevator the pit should be amply large and if the elevator is an old one in practically all instances it is necessary to make the pit larger.

Where scales are installed outside, a 10 ton, 18 ft. heavy duty scale will take care of the business very nicely.

In building a new elevator or modernizing an old house, the approach and exit should be as low as possible, giving an easy grade.

In new elevators the best preventative of fire that we know of is a well lighted elevator with all equipment easily accessible to the operator so that all machinery and bearings can be easily inspected and cared for.

## The Elevator Leg Needs Watching.

The vital part of the grain elevator is the elevator leg. Its alignment is first to be considered, whether the belt has the proper clearance and proper tension, whether the cups are all bolted in place uniformly so as not to drag against the leg casing.

The speed of the head pulley can be either too fast or too slow. The discharge from the buckets may not center thru the outlet of the head. The delivery of grain from the spouting to the boot must be arranged to avoid choking. The head pulley shaft must be properly supported to be kept in alignment and the shaft should be of strength to be rigid.

The bearings of the head shaft deserve more attention than is usually accorded a slow moving shaft; but the weight on it is so great, careful attention and lubrication is needed, or the use of anti-friction bearings. The head pulley should have ample clearance on each side to avoid concealed friction.

Elevator owners can not ignore the large number of mysterious fires starting in the cupola.

## Improved Friction Elevator Head Drive.

With the more general use of large trucks in hauling grain to country elevators larger and faster handling legs have become an urgent necessity in order to prevent congestion in the driveway and the adjacent streets so it has become the common practice of every elevator owner when making repairs or improvements to install a larger leg with larger head pulley, anti-friction bearings and larger cups in order to remove the grain more quickly from the receiving sink.

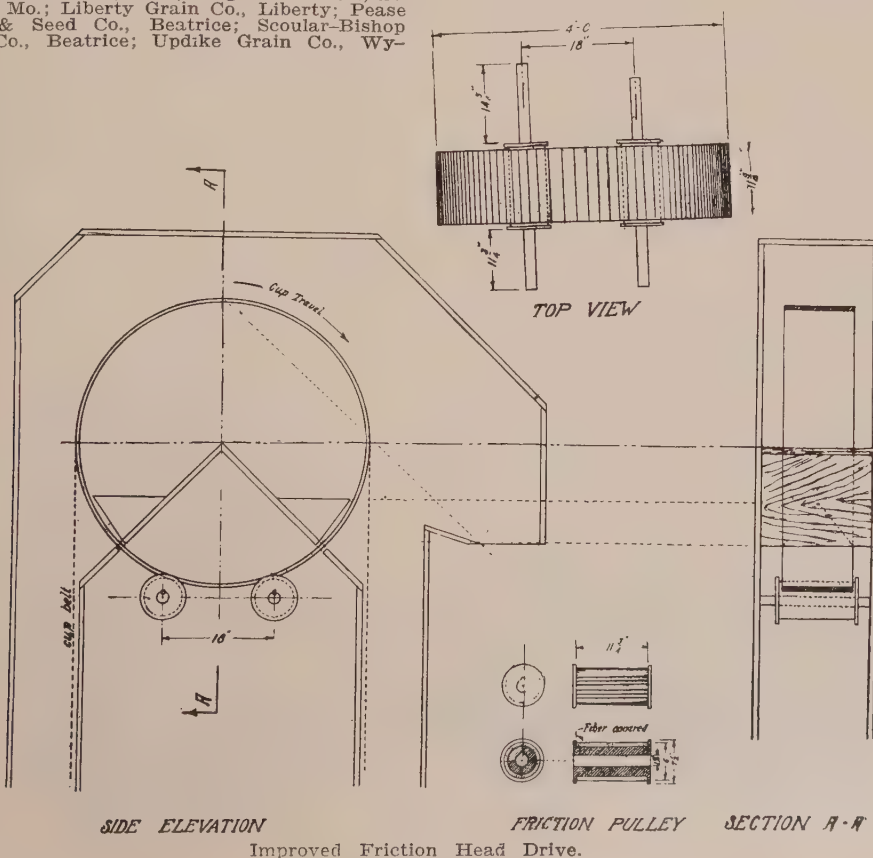
The great number of elevator fires originating in cupolas of country elevators can generally be traced directly to the small capacity legs with small cups, small head pulley, light shafts and plain bearings, all of which are strained to the bursting point by the heavy rush of business every time the truckers start to dump a new crop into the receiving sink.

It has been a long time since any radical change was made in the construction or equipment of the elevator head or its operation. Some time ago Mr. A. C. Rynders of the White Star Co. conceived the idea of changing the drive of the elevator head pulley so as to relieve the head pulley of all driving stress and the friction elevator head drive illustrated herewith is the result of his experiments. This head drive was installed in the Red Star Elevator at Isabell, Kans., eight years ago and has proved more than satisfactory. The head pulley is carried on two friction rollers key seated to two shafts. These shafts are mounted on ball bearings and supported by a heavy substantial frame so that the load of the head pulley is carried on four bearings instead of on two. The friction rollers are covered with fibre so as to prevent slipping on the face of head pulley. This drive is very quiet, easy running and prevents lost motion.

The head pulley in this installation is forty-eight inches in diameter while the friction rollers are six inches in diameter on eighteen inch centers. Each friction roller has a flange at each end so as to prevent head pulley getting out of alignment. This gives a speed reduction of eight to one. The leg belt travels at a speed of 520 feet per minute and being equipped with 9-in. "V" buckets on a 10-in. belt, leg has an approximate elevating capacity of 2500 bus. per hour.

Giving service too far ahead for competition to imitate is the way to kill competition.

Bankruptcy threatens Danish farmers, according to a dispatch from Copenhagen, stating a country-wide survey made by the National Danish Agricultural Union shows that 33% of the Danish farmers are bankrupt. Overproduction.



Improved Friction Head Drive.

# The Advantages of Anti-Friction Bearings

By R. D. MacDaniel, Director of Field Service Grain Dealers National Mutual Fire Ins. Co.

In these days of hard roads, trucks, and quick hauls the dealer who cannot handle grain speedily must watch it go to his competitors who can. Competition in the grain business and its allied lines is altogether too keen for a man to attempt to operate with either antiquated methods or obsolete equipment. Many have attempted it, but their number is dwindling month by month. Elevator owners generally have come to a realization that if they are successfully to compete for business and show profits they must have modern equipment.

Under present conditions in the grain business, profits frequently can be increased only through decreasing the overhead—cutting the cost of operation. The grain man who can do business with the lowest expense ratio controls his territory and his competitor's profits. The grain dealer's greatest opportunity to decrease his expense ratio usually is found in the elimination of waste from his business. It is not the purpose of this article, however, to discuss that statement in all its ramifications, but to consider one element that affects the profit and loss account to a very considerable extent—bearings.

As might be expected, the mutual fire insurance companies first considered the use of anti-friction bearings in grain handling plants as something that would reduce the fire hazard. Soon, however, after we had given the subject more thorough study, and had investigated the experiences of elevator owners and millers who were using these bearings, we came to the conclusion that, altho the general use of anti-friction bearings will have a decided effect on the fire loss, the effect they will have on operating conditions far outweighs any other considerations. In advocating the use of such bearings, therefore, we feel we are doing so in the best interests of the trade as a whole and the individual owner in particular.

Quite frequently we are asked, "Just what would these bearings do for me?" A definite reply is usually impossible, because we are not sufficiently familiar with operating conditions at that particular house. We can in a general way tell what results may be expected where plain bearings are replaced by bearings of the anti-friction type.

**Power Saving:** The most obvious saving to be expected from the use of anti-friction bearings is that of power consumption. It is, at least, the most widely advertised. Because it is virtually impossible to obtain identical operating conditions during two tests of the same equipment made at different times, we have no figures to show relative power consumption of any pieces of equipment actually installed in elevators. We have, however, manufacturers' tests which indicate that a separator or scourer,

for example, will require from 25% to 33⅓% less power if equipped with anti-friction bearings. It is common practice to add 50% for friction in figuring the power requirement of an elevator stand, so a saving of one-third in power consumption of the stand having head bearings of the anti-friction type should confidently be expected.

The manufacturers of these bearings have figures galore showing what power savings have been made possible by use of their bearings in factories, and certainly the average country elevator offers a much greater field for friction loss than the average factory with its well-aligned and well-cared-for shafting and equipment. On the whole, we believe that a saving of 25% in power consumption of any elevator can be effected by changing from plain to anti-friction bearings.

That saving may not particularly appeal to the man who is using a steam power plant or who may already have a power unit of adequate size for his requirements. But suppose he has just enough power for his present needs and desires to install additional equipment? The installation of anti-friction bearings may make it possible to add the new pieces of equipment without any change in power unit or power plant investment and at no increase in monthly expenditure for fuel or electricity.

Perhaps the owner is confronted with the purchase of a new power unit. As an example of what may be done in such a case, here are some figures furnished by a prominent elevator builder for a particular job:

Cost of a 40 H. P. oil engine.....	\$3,055.42
Cost of anti-friction bearings.....	705.60
Total .....	\$3,761.02
Cost of a 60 H. P. oil engine required for operation of same house with plain bearings .....	\$3,743.92
Difference in cost.....	\$ 17.10

It is hardly necessary to say that the future saving of practically one-third in fuel bills far overshadows the insignificant difference in first cost. Had an electric motor been under consideration, there would be a still further saving in the monthly minimum charge (usually figured at \$1.00 per horse power) which should be taken into consideration wherever there is likelihood that the current charge during part of the season will not equal the minimum connected horse power or "demand" charge.

Where a complete new installation of power and transmission equipment is contemplated, the first cost with anti-friction bearings will often be lower than with plain bearings. In the case cited in the foregoing, plain bearings for that house would have cost \$127.10, making a difference in first cost of engine and bearings of \$110.00 in favor of the anti-friction bearings.

In an attempt to secure some definite figures on savings in power consumption, we wrote

several owners who had been using anti-friction bearings for some time. The effort was fruitless as far as figures were concerned—nobody had any. The universal reply, however, was, in effect, this: "We know that our bearings save us power, but we don't know how much. But they are so satisfactory that we would not do without them even if they didn't save us any power whatever." Which statement introduces those phases of the subject which are most important, but often considered as the "incidental" advantages of anti-friction bearings.

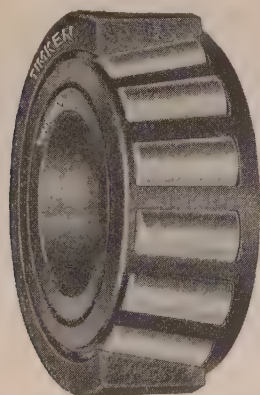
**Maintenance and Repairs:** When once properly installed, anti-friction bearings practically eliminate bearing maintenance and repairs. That is more important than at first is apparent. Only the individual operator can estimate just how much in dollars and cents that would mean to him. Figure how long it takes you or your helper to clean and oil the bearings in your house. Multiply that by the number of times it is done in a year. Add the time spent in rebabbitting. Perhaps a bearing went bad and you had to shut down until repairs could be made. Add that, not forgetting that you probably lost some business at the same time.

On the other hand, consider that anti-friction bearings when under continuous operation need attention not oftener than at intervals of four to six months. This feature alone is worth the price of bearings to any man who wants to go through his crop movement without a shut-down, and at the same time devote a minimum amount of attention to the mechanical operation of the house.

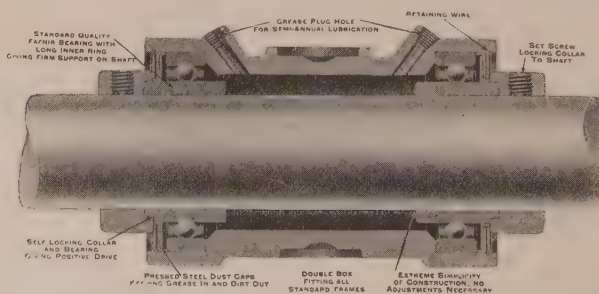
Plain bearings simply must have frequent attention; the harder the house is being operated the more attention they require. It is more profitable to handle customers than to oil bearings, and if plain bearings are neglected the customers may have to look for another market for their grain. For, as one manufacturer of anti-friction bearings so tritely expresses it: "Nothing is apt to cost so much as a bearing that costs so little."

While there are plenty of exceptions, the statement is generally true that the average grain man (dealer or helper) is no mechanic. He does not hold his job or continue in business simply for the purpose of keeping the machinery in operating condition. He is there for the purpose of buying grain; he is hired or is in business because he is a good grain buyer and not because he can do a good job of lining up a shaft or rebabbitting a bearing. For that reason the mechanical equipment especially at one-man stations is often found in such condition it is a source of wonder that it can be operated. That state of affairs constitutes one big reason for the heavy fire losses sustained annually by the grain trade. The general use of anti-friction bearings will remedy this situation to a marked degree.

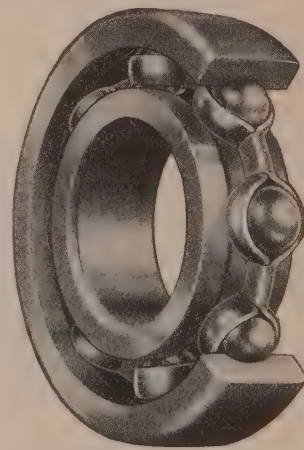
Fire losses constitute a drain on every-



Tapered Timken Roller Bearing.



Cro's Section thru Fafnir Ball Bearing Mounted on Shaft.



Outer Race Cut Away Showing Ball Guide and Inner Race of Fafnir Bearing.

body's pocket-book. Lack of profits in the grain business has increased fire losses. This constitutes a vicious circle that can only be broken by each individual grain dealer taking stock of his own situation and applying the proper remedy. It has been shown above that installation of anti-friction bearings will tend to lower operating costs; now what effect will they have on the fire loss? Figures are tiresome, so we won't introduce many, but consider that last year 70% of the loss paid on elevators by the "Grain Dealers Mutual," which insures more country elevators than any other company was due to unknown causes. For the reason that a fire due to a hot bearing requires several hours to develop and that 65% of our total loss was from night fires, it is logical, we think, to attribute the great proportion of our "unknown" loss to overheated bearings. It has been estimated by those intimately connected with fire prevention work that fully 50% of the "unknown" losses on elevators could be eliminated through the general use of anti-friction bearings. If this could be done it would mean a tremendous saving to the grain trade, individually and collectively.

Space does not permit a review of the various types of anti-friction bearings. It should be explained, however, that in advocating the installation of anti-friction bearings, the Mutual Insurance Companies do not recommend the use of the split or "replace" type which is designed for interchanging with plain bearings without the necessity of stripping the shaft. An anti-friction bearing for use in an elevator or mill should be dust-tight and, particularly if it is to be used on a head shaft, it should be self-aligning. The bearing itself may be of such design as to be self-aligning, or this feature may be supplied by the design of the housing. The self-aligning feature is advisable for any line shaft application, particularly in elevators where temporary misalignment due to unequal loading of the house is of not uncommon occurrence.

Some years ago ball and roller bearings were tried unsuccessfully by millers which may account in some degree for the lack of general use at this time. The anti-friction bearing of today is, however, much improved over that of ten or fifteen years ago and, furthermore, the adaptation of particular designs to the specific use to which they are to be put has resulted in virtual elimination of the former difficulties. As an evidence of this, the manufacturers of grain and milling equipment are now, without an exception that has come to our notice, providing their products with anti-friction bearings either as standard equipment or on special order.

We have record of about two hundred and fifty anti-friction bearing installations made in elevators within the past year or so which range from a single set of bearings up to a complete outfitting of the house, and we have

yet to hear of a single instance where they have proved unsatisfactory. Two of the prominent construction firms are now figuring all new work on the basis of anti-friction bearings throughout.

In my years of contact with the grain trade I have never found anything that offered the possibilities for improving operating conditions, profits, and the fire loss ratio as I am convinced can be effected with the general use of anti-friction bearings. From the many favorable expressions I have heard from elevator owners and operators on this subject, it seems that it will not be long until these bearings will be in general use. It may take some little time, but we are gradually awakening to the fact that—"nothing is apt to cost so much as the bearing that costs so little."

## To Get Longer Life from Rubber Belts.

When we compare the life of the rubber leg belts in two grain handling plants and find that in one house some belts gave service for 20 years and in the other plant some belts wore out in 5 years it becomes clear that proper care of the belt may greatly lengthen its period of usefulness.

When a manufacturer of rubber belting is fully informed on the conditions under which the buyer expects the belt to run he can be depended upon to furnish a belt that will operate the maximum time possible. The manufacturer will adjust the weight of the duck fabric, the number of plies, the composition of the impregnating "friction" binder, and the thickness of the outer rubber covering, so that no part of the belt will fail too soon in service, but wear uniformly to get utmost value until it all gives out like the "one-horse shay."

The feed into the boot as well as the discharge at the head should be contrived so that material will not get between the bucket and the belt, nor between the belt and the boot pulley.

Pulleys that are too small in diameter tend to separate the plies of the belt.

The heads of the bucket bolts sometimes tear the belt.

When the feed into the boot is not properly adjusted the buckets may pick up only part of the load until there is an accumulation, when the buckets will become over full, resulting in strain on the belt and possible choke-up. One way to prevent this is to have the boot pulley large enough.

Altho a very thin rubber covering of good quality is quite sufficient for ordinary elevator work, a thicker covering up to as much as 1/16 inch is better for handling wet grain. This keeps the moisture from penetrating and rotting the cotton fabric inside. If the grain handled is dry no layer of rubber on the outside is needed, provided the inner composition is of good quality.

Elevator belts are damaged and buckets ripped off by foreign objects coming in with the grain. This can be prevented by passing the grain as it comes from the farmer's wagon or the car thru a grating to intercept pieces of iron, wood and paper.

Even tho a belt may not be giving trouble it is a good plan to make an inspection every so often. It may disclose loose or broken bolts.

To keep belts from running off the head pulley, like all others, is made crowning, that is, it is of greater diameter in the middle. When the belt passes over the head pulley the stiff bucket will not bend but will hold the belt away from the pulley at the sides, giving a tendency to pull the bucket bolts thru the belt. On legs of large capacity this damage is overcome by having two rows of buckets, one on each side of the belt.

Conveyor belts are in a different class of service and in plain sight where the operator can remedy faulty operation. Wear on the edges of a conveyor belt must be prevented. The edge may be rubbing against the tripper

or against some part of the chutes. When the wear has taken off the edge of the belt, water and dirt will enter, causing the cotton duck to decay and the plies to separate.

Rubber belts last longer in the dark, as light facilitates the absorption of oxygen from the air, which in the course of time dries them out and makes fine cracks in the covering. If the belt is run in a very warm place the oxidation is accelerated.

Wear on the belt can be avoided by having the grain make contact with the belt surface while moving at approximately the same speed as the belt. Attention to the incline and curvature of the chute will help at this point. Belts are sometimes damaged by idlers that have been worn due to failure to keep them lubricated.

The evil of bending belts over pulleys that are too small in diameter is aggravated by some trippers having pulleys 12 inches in diameter, which have the usual effect of making the plies come apart.

Oil and grease must be kept off a belt. The oil in corn has a harmful effect, which becomes evident if the corn is out of condition or has been salvaged.

Superintendents of transfer and cleaning elevators suspect wheat smut of causing an early disintegration of the rubber on the face of conveyor belts.

## I. C. C. Activities.

In 20845, Southard Feed & Milling Co., Kansas City, Mo., v. C. R. I. & P. et al., alleges charges in violation of Sections 1, 4 and 6 of the Act, on corn chops and grain transited at Kansas City, Mo., and destined to Pensacola, Fla. Ask reparation.

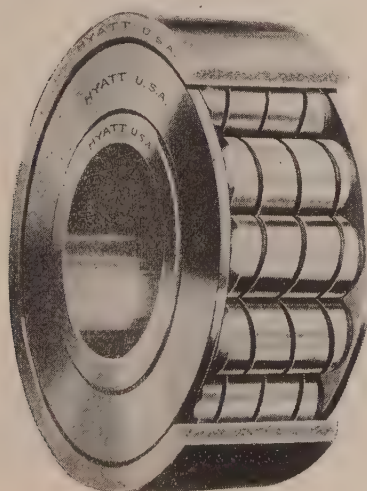
Grain and Products rates from Cincinnati and Louisville were held unduly prejudicial to Alledale, S. C., as alleged by the petitioner, Alledale Grocery Co., to the extent that they exceeded the rates to Bamberg, Orangeburg, Barnwell and other points in South Carolina, by Examiner Peyser, in No. 20019.

In Oklahoma Millers League, No. 15026, Commissioner McManamy requires the carriers to give transit services in connection with the rates on grain prescribed in 128 I. C. C. 523, on grain and products from points in Oklahoma to destinations in Louisiana. The new rates conforming to the Commission's findings are to be made effective not later than June 25.

The Oklahoma Wheat Growers Assn's complaint has been recommended for dismissal by Examiner Walsh, who found the rates on grain to Texas not unreasonable. The claims covered over 18,000 cars and the reparation would have been in excess of \$220,000. It was a question of the method of computing distances. The complaints were not filed until 4 years after the rates were published, and Mr. Walsh thought that if the rates were unreasonable shippers would have made complaint at an earlier date.

In 19224, Sperry Flour Co. v. Rock Island et al., and sub-number thereunder (Globe Grain & Milling Co. v. C. R. I. & G. et al.), Examiner Davey has recommended that the Interstate Commerce Commission find unreasonable the combination rate on grain and products from Okeene, Komalty, Kingfisher, Hobart, Carnegie, Gotebo, Aline, Waukomis, Enid, Walters and Pocosset, Okla., to destinations in California, accorded transit services at Fort Worth, Tex., and authorized the waiver of undercharges by way of reparation. Failure to maintain transit at Fort Worth should be found unduly prejudicial because of contemporaneous maintenance of transit at competing points.

In 20166, Globe Grain & Milling Co. v. Santa Fe et al., Examiner Glenn has recommended that the I. C. C. find unreasonable the minimum rules and charges on carload shipments of bulk kafir corn shipped from Melrose, N. Mex., to Monrovia and Santa Barbara, Calif., prescribe new ones for the future and award reparation. Failure of defendants to include in their tariffs a provision that charges for carload shipments of cereals and cereal products would be based upon actual weight when a car of less capacity than the tariff minimum was furnished for the convenience of the carrier, and such car was loaded to its capacity, resulted and would result in an unreasonable practice and charges.



The Hyatt Roller Bearing.

## Conveying Corn from Ohio River Barges.

BY JESSE RICE

H. E. O'Bryan, manager of the Owensboro Grain Co., operating an 80,000 bus. elevator at Owensboro, Ky., has devised the efficient conveyor shown in the engraving herewith to transfer grain from barges on the Ohio River to his elevator.

The conveyor is built in 10-ft. sections of oak lumber, to make it extensible, for either high or low water, and for convenience in handling. As shown in the engraving it is 160 ft. in length.



River Elevator of Owensboro Grain Co., Owensboro, Ky.

Most of the time the unloader is left out exposed to the elements, tho in cases of extreme bad weather or a high water stage, the windlass shown in the upper part of the picture, which carries a  $\frac{1}{2}$ -inch steel cable, is brought into service and the sections pulled to the bank where they are stored in a shed.

A detachable steel chain has bolted to it pieces of oak, 1 by  $1\frac{1}{2}$  by 15 ins., riding snugly on the smooth bottom of the trough, and connected to the chain at intervals of three feet to form a continuous belt. The chain runs over steel cogs at unloading and receiving ends, thence into a slot in the bottom of the conveyor trough. Steam power is used for all the machinery connected with the elevator or mill.

The platform supporting the conveyor is of 2x4 in. x 6 ft. oak lumber. These pieces are secured to heavy beams which in turn are resting on small concrete piers or blocks from one to five ft. high.

The unloading process is usually begun at the down river end of barge and the conveyor kept stationary. As the corn is unloaded the barge is slacked off and let drift down stream, thereby keeping shovelers and conveyor close together, the main conveyor being supplied by a short elevator and chute extending over the side of the barge. The barges average 6,000 bus. of corn and the unloading capacity is approximately 1,500 bus. per hour. After the grain reaches the top of the river bank it falls into a hopper directly above an underground continuation of the conveyor, from which it is dragged an additional 75 ft. to the corn sheller in the elevator.

The district from which corn is drawn to Owensboro extends from Cloverport, Ky., a point 40 miles up river, to the mouth of the Wabash, or within a radius of 100 miles up and down the river. This district along the banks of the Ohio River has an annual production of 1,500,000 bus. of corn. Cribs are built at intervals along the banks and from 4 to 20 ft. above high water mark. When collecting the grain a barge is beached as near the crib

as loading conditions will permit. A pair of pit scales is unloaded and placed on a convenient spot of ground between the barge and the crib. A chute is then laid from the barge to the top of bank, which is 7 ft. wide at loading end. At this point a pit 3 ft. deep by 6 ft wide is dug, gradually sloping up to level ground. Wagons are driven over to the elevated crib. A door is pulled open, the ear corn pouring into the wagon box in a stream and filling it within a few seconds. The driver then continues back toward the barge and, crossing the scales, is checked and weighed. Going on, to the river, he turns and backs the hind wheels into the pit directly beneath the mouth of the chute. The wagon's end gate is raised and the corn passes on to the barge, the operation of filling, weighing and unloading consuming about 5 minutes. In a day's time 10,000 bus. can be loaded onto the barge.

The Owensboro Grain Co. also does an appreciable business thru the St. Louis market at the transit rate of 31 cents, which carries the privilege of reshipping. The advantage perhaps often is a deciding factor in meeting price on competitive business which otherwise could not be attempted.

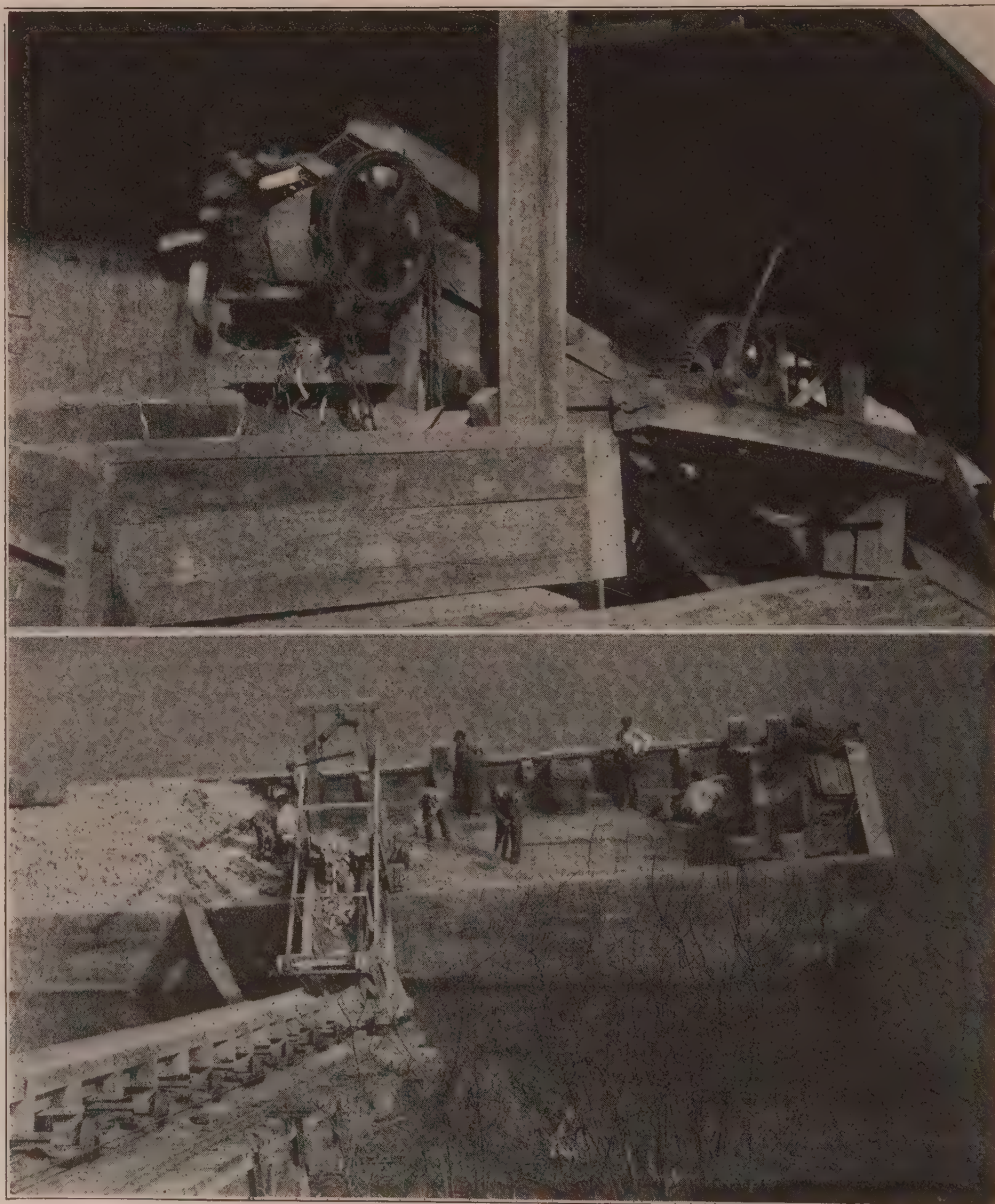
A selling program was never invented that would solve such over-production problem as faces the wheat producers.

## Hearing on Board of Trade Warehouse Corporation.

On Apr. 24 the Illinois Commerce Commission, after several months' delay, held another hearing on the application of the Board of Trade Warehouse Corporation for a license.

The hearing developed a unanimity on the part of the Illinois Agricultural Ass'n, the elevator men, and the commission merchants in favor of the new scheme. The warehousemen, who were not directly represented at the earlier hearings, now were represented by J. J. Stream, who testified.

S. P. Arnot, president of the Board, first to testify, covered the entire history of the new corporation under the questioning of Frank M. Towner, of Winston, Strawn & Shaw, who have replaced Mr. Townley as attorneys in the proceedings, for the new warehouse corporation, the directors of which now are R. A. Cowles, secretary of the Illinois Agricultural Ass'n; E. E. Brown, vice-president of the First National Bank, who was the arbitrator in the Armour-Rosenbaum dispute; W. H. Geddes, of the Illinois-Merchants Bank; Louis C. Brosseau, member of the Board of Trade, and D. H. Lipsey, a member of the warehouse com'te of the Board of Trade.



Conveying Grain from Ohio River Barge to Elevator of the Owensboro Grain Co., at Owensboro, Ky.

# California Grain and Feed Dealers Hot After Credit Abuses

The California Hay, Grain and Feed Dealers Ass'n is a bunch of live dealers organized for the purpose of improving trade conditions. With that idea in view the fourth annual convention convened at the Alexandria Hotel, Los Angeles, April 13 and 14. The meeting was called to order by President A. W. Scott with over one hundred dealers in attendance.

The dealers were welcomed to Los Angeles by R. M. McCourt, vice-president of the Los Angeles Chamber of Commerce. He spoke of the production of hay, grain and alfalfa and their importance in the commerce of the state.

ARLO V. TURNER, vice-president of the Grange Co. Modesto responded to the address of welcome.

The report of the memorial committee by S. R. James of the James Grain Co., of San Jose, revealed the fact that during the past year the association had lost no members by death.

A. W. SCOTT of San Francisco delivered the president's address, from which the following is taken:

## Address of President A. W. Scott.

We are endeavoring to enroll all responsible and reputable firms dealing in the products of the field in our one state organization.

We desire to establish friendly co-operation in all their trade relations, and to do so, we are trying to standardize and co-ordinate methods of trading, forms of contracts, market and credit conditions and to harmonize disputes by arbitration.

We are endeavoring to establish uniform credit systems thruout the state for the benefit, not only of our own trade, but of those producers from whom we buy, and of the reputable consumers to whom we sell.

We aim to aid and to enlarge trade, both within and exported out of the state, and to create new markets wherever possible to the mutual advantage of the California dealer and the California producer.

Our earnest efforts are being exerted to establish and maintain cordial contact and co-operation with all producers and allied industries in our lines for the up-building of California agriculture; understanding our mutual dependence one upon the other.

Realizing the disastrous effects of hasty and ill-advised legislation upon production and marketing conditions in agricultural matters, we are working, particularly thru our country sections, to establish personal and friendly contact with members of our legislature and with state officials thruout California, that they may have full information regarding our trade and its problems connected with production, transportation and distribution, and that they may learn our sincere desire to work for the benefit of California agriculture.

We desire to co-operate with our State Agricultural Department, and with all departments interested in state problems, in the inaugurating and aiding all practical efforts to assist and improve California agricultural production and distribution.

**Board Meetings.** There have been two meetings of the Board of Directors held during the year, one the organization meeting, following the last convention, at which the functional division of the Board of Directors who represent our three different sections, Hay, Grain and Feed, was completed. General routine matters were mapped out, and instructions given to the officers as to the scope of work and com'tes to be appointed.

The second meeting was held in San Francisco, Sept. 24, 1927, the matters which came up for discussion related to: Association finances and membership, sectional meetings, standardization and grading of field crops, noxious seeds and puncture vine program, tubercular herd action, quarantine problems, legislative problems, credit bureau and conditions, and many others.

We have accomplished many excellent results by working in harmony with other trade groups. We are particularly pleased that we have been working in harmony without friction or personal prejudice, both within our trade and in our outside trade relations, with co-operative organizations, with independent organizations, with farmers and producers' bureaus, com'm'tes and representatives.

Regional meetings have been carried forward with much success. They have increased steadily in numbers and more decided interest

month by month. These meetings should have the serious consideration of our convention. We should prepare constructive and uniform projects to consider in each section. A state program of credit should be developed and adopted by the convention for application in the various communities, something that will be simple and sane with frank recognition of our problems and an attempt to solve them by modern practice now used in other lines of trade.

**Cost Analysis.** Too much emphasis cannot be laid upon the advantage of the study and disseminating of information regarding our business costs. The cost analysis chart of our committee is most valuable. It does not say what costs should be, but what makes up cost, what are the elements to consider and what are legally safe. Farmers, dealers, poultrymen and dairymen should all study this, realizing that there are new competitions arising daily, and that new conditions must be met with new methods.

**Legislation.** The State Legislature opens its session again this year. We should have a strong active com'te representatives of our trade and its relations to present such information and render such assistance as will be helpful to those groups working for the interest of agriculture at the State Capitol. The work of our com'te last year was exceedingly successful. We obtained some new legislation that has been of proven value to our trade, and we presented arguments and data that prevented much ill-advised and intemperate legislation. It has been our belief that we need fewer new laws and regulations and more enforcement of the present laws.

Many important matters are now pending and are to be brought before the next legislature that should have the serious consideration of this convention. We are confronted with problems involving: Noxious seed and puncture vine, quarantine, standardization of field crops, warehousing, weighing, marketing, transportation, trade license and supervision, seed laws, commercial feed laws, poultry supply laws, dairy regulation, sanitation.

The serious menace in all these topics is from the earnest individual or organization that views wrongs and abuse, perhaps, from only one side of the question, and takes hasty corrective action that may react and cause greater trouble in other directions. What I conceive one of the most valuable functions of our Ass'n is the open forum which it creates. Here those of us who deal in the present markets and who are contributing the best that we have in experience, in resource and in ability to create new markets, may sit down together and thoughtfully, dispassionately and with open minds study the problems of the producer, of the transportation agent, of the various service men and of the ultimate consumer, with the idea and object of working out that course which will result in the greatest good to the greatest number.

**Quarantines.**—It is the favorite plan and one of the first suggestions of the extremist to abate what looks to be a threat and menace to public health or trade, to say "let us quarantine immediately." Those who have watched the effects of embargoes and quarantines as many years as I will know that they are the most dangerous things in their boomerang effects with which one can meddle. Our Department of Agriculture will tell you the extreme fear and reluctance with which they move to establish restrictive quarantine, knowing that even local embargoes within our state between county and county, or city and city, may have far-reaching effect and cause millions of dollars loss in our foreign and transcontinental trade relations. We must study long and carefully before we shoot, that our bullet hits only the mark intended and does not bring upon us a volley of retaliation.

The recordation measure passed by your com'te last year is now challenged by certain cattle finance companies, and legal action is in progress which threatens the efficacy of this bill. As we believe this to be one of the most constructive measures for the dairymen and a protection to our members, the Ass'n should take some definite stand to see that it is supported.

**Membership.**—It is needless to say that we want every good man or firm in our line to be affiliated with our Ass'n. When business is bad, naturally several will drop out, and it means the continual effort not only of an active membership com'te, but also of all the members to see that non-members in our line are shown the light and join us in what we know is doing good to all. It appears to me that some change should be made in the style of dues charged for the different classifications. I suggest that the membership com'te study into the matter of making several other classifica-

tions necessary to finance the Ass'n properly, and give us the benefit of their suggestions. Some means should be devised to relieve the secretary in the collection of our dues. It is extremely difficult for him to be a diplomatic creator of social contacts, mediator in trade disputes and at the same time bill collector of delinquent dues.

EDWIN L. DIAL of the Dial Grain Co., San Francisco, spoke to the dealers on "The Grain Industry for 1928." Fifty years ago California was the largest wheat producing state in the United States. We are still large producers of wheat, oats, barley and sorghum. About one-half of our barley is exported. On January first we had on hand 145,000 tons of barley, 6,000 tons of oats, 25,000 tons of corn and 130,000 tons of wheat. Our crop prospects for this year are excellent and we should produce this year 675,000 tons of barley and 350,000 tons of wheat.

Sec'y I. J. STROMNES made his report, which outlined the activities of the association as expressed in President Scott's address.

C. A. GARDNER, chairman of the membership committee, reported that during the year sixty-six new members had been secured and 47 members were lost, leaving a total membership of 323, a net gain of 19.

The report of the auditing committee showed the assets of the association to be \$3,862.89, with liabilities of \$450. The surplus to be \$3,432.89.

"FARMER-DEALER RELATIONSHIPS and the Agricultural Editor" was the subject of an address by Donald L. Kieffer, managing editor Pacific Rural Press, who spoke in part as follows:

Regulation by federal hay grades serves two ends, to protect you against many of your most serious business risks and also to protect your growers and your customers against many of your most serious failings. With the establishment of federal state hay inspection and grading in terminal markets, and possibly in certain important producing centers, there will surely come a demand from producers for a standardized selling contract based upon the federal-state inspection and grades. Doesn't this offer you the surest means of protection against irresponsible truckmen and competing dealers?

It occurs to me that members of the San Francisco grain trade are making a serious mistake in not returning to an open grain exchange. One which actually tells what the market is and one which isn't afraid to announce receipts and amounts on hand by grade, and the quantities dealt in. Some of you have told me the boys on the Los Angeles Exchange are piker kids in the business, from Iowa. Then let me say that the California grain producers welcome more settlers from Iowa who believe in public trade quotations. Remember that San Francisco is known among producers as the "Toll-Gate City."

Many of you, I know, in the grain, feed and hay business are not strong for cooperative movements as they have developed in this state. By now no doubt you will agree with me that all gall is divided into three parts—farm paper editors, feed salesmen and other uplifters.

PRES. SCOTT appointed the following committees:

Nominating: Gail McDonald, H. M. Maddaford, A. V. Turner, H. C. Haslett, D. A. Macauley.

Resolutions: S. R. James, J. L. Farrar, Oscar Irwin.

President's Report: C. A. Gardner, C. C. Hine, Ellis Hart, Harold Bacon, A. C. Knight.

## Friday Afternoon Session.

CROP PROSPECTS for 1928 was submitted by Chairman Joseph Powers of the Committee on Statistics. The report covered wheat, oats, hay, grain, alfalfa hay showing acreage and yield by counties. The report as a whole would indicate the crop prospects for 1928 to be above the average.

G. C. Keeney, San Diego Poultry Association, and vice-president of the California Hay, Grain & Feed Ass'n, discussed "An Industry Credit Program." He laid stress upon the value to the industry and the customer as well of giving a cash discount on cash sales and to reduce credit accounts wherever possible. Also the exchange of credit information among the

dealers whenever possible so as to keep tab on delinquents and slow payers.

W. E. KINSEY, president of the Hay Dealers' Credit Ass'n of Southern California, discussed "Trade Area Credit Plans in Operation." The theme of his talk was that if you don't get your money for what you sell you don't make any profit. He outlined methods used to collect credit information and the value it is to the membership.

Much interesting discussion was had from the floor regarding credits. In starting a credit association in local territories it developed that the hardest problem was to overcome jealousy that existed between the dealers themselves. Fear was expressed that information secured might be used to the disadvantage of the dealer furnishing the information. The whole plan of the credit association is to protect the dealers against bad accounts. One direct result has been to get more and more of the dealers to go on a cash basis and those who have done so have found their business better and their profits secure. Those who use credit find that competition is not on the goods sold but on the terms offered.

J. L. FARRAR of the La Sierra Alfalfa Co. submitted a copy of a uniform contract to be used by those who desire to secure credit, for adoption by the association.

"THE MIXED FEED INDUSTRY and the University" was discussed by W. A. Lipincott, Professor of Poultry Husbandry, U. of C. at Berkeley.

DR. M. E. JAFFA, Chief Bureau of Foods & Drugs, talked to the dealers on "Enforcement Measures on Feed Control." We believe that in the enforcement of our laws that an

ounce of education is much better than a pound of prosecution. We should have universal feed laws throughout the country. He spoke of various feeds and how they should be labeled to conform with the law and what would constitute misbranding.

HAROLD BACON presented the recommendations by the Commercial Feed Stuffs Committee. He felt that the association was in the strongest position of any one to make suggestions for changes that may be deemed advisable in the existing feed laws.

His report follows and was adopted by vote.

### Recommended Changes in California Feedingstuffs Act.

The following recommendations are based on action taken by representative groups of commercial feed manufacturers held recently in Los Angeles and San Francisco, and are as unanimously agreed upon by the members of the mixed feed committee of the Ass'n present. After thoro discussion and consultation with representatives of the board of directors it is recommended that our Ass'n as a whole take favorable action upon the following recommendations:

(1) That the word "minimum" be stricken from Section 3, Paragraphs (d) and (e) of the California commercial feedingstuffs act; that the word "maximum" be stricken from paragraphs (f) and (g) and that the following paragraphs be added to Section 3: "It shall not be deemed a violation of the provisions of this section unless the analysis of crude protein or crude fat are more than two units in excess of their respective stated percentages or more than one unit lower than their respective stated percentages, and/or the analyses of crude fiber or ash are more than one unit in excess of their respective stated percentages or more than two units lower than their respective stated percentages."

(2) That the State Board of Health be requested to insert the word "approximate" before the words "order in which they predom-

inate" in the next to the last sentence of Regulation No. 2 of the act.

(3) That the last sentence of Regulation No. 2 be eliminated so as to allow a reasonable amount of advertising matter on the back of the tag or label required to be attached to each lot or parcel of feedingstuffs sold.

(4) That a provision be added to the Rules and Regulations of the Act requiring that a copy of the results of the chemical analyses of all samples of feedstuffs analyzed by the State Board of Health be sent to the manufacturer for his information and guidance.

(5) That the maximum percentages of crude fiber allowed for the permitting of ground barley and ground oats to be exempt from the tagging provisions of the Act as contained in Section 1, paragraph (b), be lowered 1 per cent each so as to require them to contain not over 8 per cent crude fiber in the case of ground barley and not over 13 per cent fiber in the case of ground oats.

Recommendation (5) in regard to elimination of the tagging provisions for alfalfa products of the southern group and so tentatively approved by the northern, was discussed by the mixed feed committee but no action taken.

D. L. MACAULEY of Sacramento told of the "Factors in the 1928 Alfalfa Market." His reports summed up would indicate that in the northern part of the state there will be an increase of 10,500 acres to alfalfa with an increase of 27,500 tons.

GAIL McDOWELL of Los Angeles reported for the southern part of the state. He said that it was hard to get a definite line on the situation due to the fact that alfalfa every three years is rotated with cotton, but that replies would indicate an increase of about 5,000 acres or 30,000 tons.

THE WEED PROBLEM in hay was discussed by a representative of the State Dept. of Agriculture at Sacramento.

Report of the nominating committee is as follows:

### Switching Cars Back by Gravity.

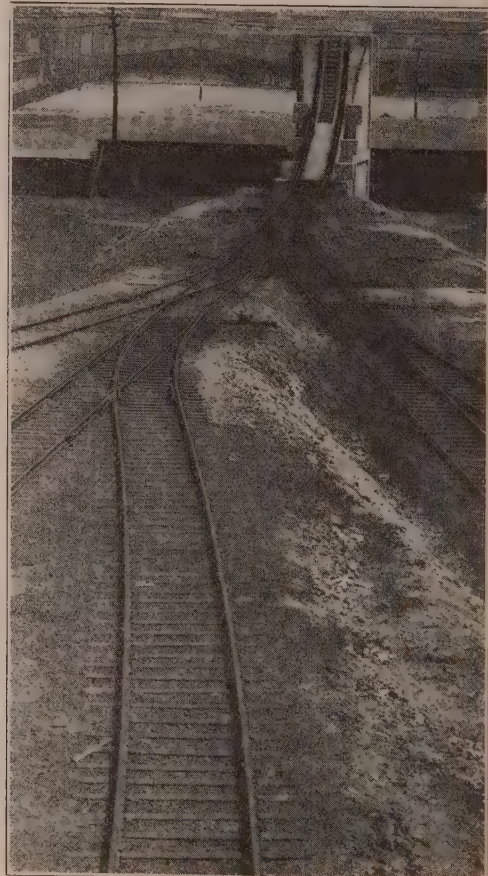
The "kick-back" in use at the new Port Richmond Elevator of the Reading Railroad at Philadelphia, Pa., is believed to be the only device of the kind operated at a terminal grain elevator.

The tracks of the "kick-back" are curved upward at an increasing angle, becoming so steep at the top that the car can not climb the incline clear to the top, but after pausing a moment at the extreme height reached by reason

of the momentum, will drop back quickly. To sustain the weight and thrust the tracks are laid on a reinforced concrete buttress built at the extreme end of the path of travel in the railroad yard.

The track shed of the Port Richmond Elevator has four receiving tracks for grain laden cars. After the cars pass the unloading and the sweeping pits the empties are pushed out of the truck shed by mules, and by traveling down-hill gain the momentum enabling them to mount the kick-back illustrated herewith.

The kick-back is automatic, requiring no car puller, locomotive, switching crew or direct power. It sends the cars back down by gravity to the empty car storage yard, switches directing the movement of the car to any of the several storage tracks.



Empties from Track Shed of Port Richmond Elevator, Philadelphia, Run Down Hill and Up Onto Kickback, Gravity Switches Cars Back to Storage Yard.

President—O. H. Blasingham, Los Angeles; vice-president—H. C. Hazlett, Petaluma.

Directors, hay division: E. R. Long, Bakersfield; A. W. Scott, San Francisco; Harry Jordan, Los Angeles; feed division: Eric Ruus, Hayward; Jack Claypool, San Bernardino, and E. A. Deming, San Francisco; grain division: Rudolph Volmer, San Francisco; Philip O'Connell, Stockton; Oscar Irwin, San Diego.

## Saturday Morning's Session.

The report of the special committee on Trade Rules and Arbitration was made by H. M. Moddaford, chairman, and adopted as follows:

### Trade Rules Com'te Report.

After careful review of the existing arbitration procedure decided that it was inadvisable to make any changes. One opinion, which is here noted, was that any simplification might result in appeals to arbitration on smaller matters which should properly be settled between the affected parties, whereas under formal procedure now existent very few cases are brought before the Arbitration Board.

The following additions and amendments to the hay trade rules are recommended for the approval of the membership:

**Addition to Rule 15: Disposition of Off Grade Hay.**—In the case of delivery by truck, the buyer shall notify the seller immediately, and if no disposition is given within two (2) hours by seller, he, the buyer, shall exercise due diligence to dispose of said goods at once, and to the best possible advantage for account of the seller.

**Amend Rule 16 to read: Shortage, Damage and Overcharge.**—In the case of shortage or damage on hay or straw, notification shall be given the seller by the buyer within five days from date of delivery that such hay is being handled by buyer to best advantage. Final settlement of all claims to be made within thirty days.

**THE COST OF TRUCK DELIVERY** in the Feed Business was discussed by Rex Boston, Sec'y-Mgr., Truck Owners' Ass'n of Southern California.

It was moved and seconded that a committee be appointed by the new board of directors to handle the trucking problem of the members and take action needed. Motion carried.

**A COST ANALYSIS** system for the feed business was discussed by C. C. Hine, vice-pres. of the Globe Grain & Milling Co. He submitted to the dealers a sheet, grouping the various items that enter into the cost of doing business. He said that if one's competitor does not know what it costs to do business it offers a serious handicap to the man who keeps a record of costs. This form was submitted with the idea of giving a tangible picture of what it costs to put goods through his store for merchandising purposes. If such a system were in effect by the dealers Mr. Hine stated that 75% of the dealer's troubles would be eliminated.

**SEEDS, a Profitable Side Line,** was discussed by W. B. Early of Aggeler & Musser Seed Co., Los Angeles, and president of the Pacific States Seedsmen's Assn. He pointed out why a seed department could be made a profitable side line, through the contact that would be made with the farmer and a better understanding of his problems.

**REPORT** of the committee on the president's report was as follows:

**Revision of Dues:** We recommend a committee of three be appointed to work out a new schedule of dues.

**Finance Com'te:** We recommend that a committee be appointed to be known as the Finance Committee to control the budget and expenses and to supervise raising of funds necessary for the proper conduct of the Association.

**Change of Fiscal Year:** We recommend that the by-laws be changed so that the fiscal year shall be from Jan. 1 to Dec. 31.

**Credit Program:** We recommend that the state association sponsor a definite credit plan for its members, and assist in every way possible all local credit associations.

Resolutions were adopted thanking those who had contributed to making the convention a success.

H. M. MODDAFORD took the floor and presented to A. W. Scott, the retiring presi-

dent, in behalf of the association, a beautiful silver water set consisting of pitcher, six goblets and tray.

The new officers were installed and the convention adjourned *sine die*.

## Convention Notes.

The 1929 convention will be held, no doubt, at Sacramento.

The state was well represented, for dealers were in attendance from every producing county.

THE STAG banquet was some party. It was held at the Alexandria Hotel. Singing, dancing and pretty girls kept things moving. No set speeches to check the hilarity. Oh, Volstead, Where art thou?

Due to the untiring efforts of D. L. Smith of Smith & Scott, who was chairman of the convention, everything moved off smoothly. He was ably assisted by C. B. Holliday, chairman of the entertainment committee, and O. H. Blasinghorn, chairman of the finance committee.

THE LADIES were given a royal entertainment. At 2:30 they were taken in parlor cars for a ride through the city to the ocean. Dinner was served at the Deauville Club, Santa Monica, which overlooks the ocean. The evening entertainment was at Grouman's Chinese Theatre and Chaplin's The Circus.

## New Sandwich Elevator.

For more than twenty years the Sandwich Mfg. Co. has emphasized the desirable qualities of cypress wood in the construction of their portable grain elevator, the company claiming this particular kind of wood is superior for standing weather exposure to which elevators are subjected.

Recently the company has announced an important advance in elevator construction in its Galvanized Copper-Alloy Steel Portable Elevator, for which many advantages in the way of durability and strength are claimed.

So far as possible the principles, and in many places the exact construction which have made many friends for Sandwich Cypress Elevator, have been retained.

In designing the elevator trunk of the new elevator, the makers employ several new features which will be approved by all dealers. They are:

First: The use of heavy, 16-gauge, galvanized copper alloy steel, especially suited to withstand the ravages of weather exposure. This is a distinct advance step in elevator construction.

The sides of the steel trunk and return pan have two extra bands, making them very rigid and greatly increasing the strength.

A third improvement is the use of the hardwood strips in the corners of the elevator trunk, upon which the chains travel. These are riveted to the steel trunk. They carry the drag plates just clear of the bottom of the elevator, greatly reducing friction and wear, and the chains last much longer because of contact with the wood strip than if dragged against metal. Further, the use of wood strips reduces the objectionable noise common to steel elevators, and stiffens and strengthens the structure.

## Another Explosion in Dust Collector.

Smutty wheat in no condition for making flour was being ground in a Jay Bee Hammer Mill in the plant of the Farmers Mill & Grain Co., at El Reno, Okla., for stock feed.

The No. 3 grinder was located in the basement of an attached warehouse, with window opening near grinder. The stock going into the grinding bins was scalped over a shoe. There was an opening in the spout for air separation, also eight 9-inch horse shoe magnets in the spout head of the grinder.

A metal fan was attached to grinder for discharging ground feed from grinder into one 36 inch by 7 foot metal collector of Wagner type with hood vent, and an 8-inch metal spout from grinder to collector about 24 feet in length, with small sacking bin located directly under discharge opening from collector.

The metal screens on the grinder after the explosion were in good condition and there were no broken places in the screens or any pieces of stray metal inside the casing.

The grinder was in operation at the time of the explosion, and those nearby at the time claim there was no unusual noise within the grinder before the blast to indicate that there was any metal passing through the grinder.

The explosion took place in the metal collector. There was no explosion in the grinder, and this machine was damaged only slightly by the fire on account of being located in the basement of the warehouse.

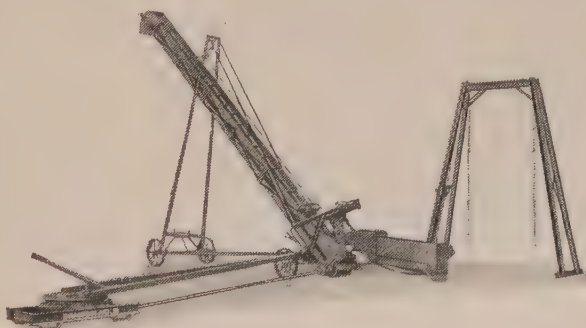
Mr. Allen was operating the grinder and at the time of the explosion was taking stock off sacking spout under collector. He was blown across the building, but was fortunately only slightly burned.

The plant was totally destroyed as a result of the fire. The loss is estimated at \$35,000, largely covered by insurance. J. N. and Paul M. Kroeker, owners, announce they will rebuild immediately, duplicating the plan of their previous plant. Mr. J. N. Kroeker is president and manager of the business.

Despite all of the evidence to the contrary, the effectiveness of the magnets installed to take out pieces of metal was unquestionably reduced to such a point as to be more or less useless. The strength of the magnets, which were not "charged," was probably small.

It is essential that consistently efficient magnetic separation accessories be kept in a highly magnetized state, preferably electrically.

The wheat raising industry of Hays, Kansas, has incorporated and will sell its stock. The Wheat Farming Co. is its corporate name. The company expects to reduce farming costs to the lowest possible minimum. Some 25,000 acres now controlled will soon be increased to 50,000 acres. The promoters of this scheme probably plan to farm on a still more extensive scale, so as to be in a position to produce more wheat to be sold to Europe at a discount under domestic prices at Chicago at the expense of the American consumer as under the McNary-Haugen bill. The organization of a few farmers' trust companies to engage in grain production along modern industrial lines would soon swamp the markets of the world.



Portable Elevator of Steel and Wood Construction.

### Feed Grinding Elevator.

In the diversified farming territory of the corn belt the local grain elevator is the center to which the local surplus of grain naturally gravitates and to which the farmer looks for his feed grinding and supply of commercial feeds.

Among the newer elevators built to meet these more recent developments in diversified farming is that at Lockbourne, O., which besides the usual grain handling machinery is equipped to dry grain and grind feed.

The elevator is 30x30 ft. plus a 12 ft. 6 ins. driveway and a 15x14 feed grinding room, making the plant 57 ft. 6 ins. long on one side, the wareroom paralleling the driveway making the house 46 ft. wide. Under the plant is a full basement with concrete walls, 12 ft. to ceiling, above which are the cribbed walls of bins, 19 ft. of 2x6 and 20 ft. of 2x4, the 6 large bins on two sides extending down to the ground floor while the 4 small bins thru the center are overhead the work floor, the main building containing 10 bins of 20,000 bus. capacity. All is iron clad.

The cupola is 22x30 ft., the scale and distributing floor 12 ft. 4 ins. and the head and cleaner floor 16 ft. high, the pitched roof adding 5 ft. 4 ins. to the height, which is 84 ft. 11 ins. above track level.

In the driveway is a McMillin Truck Dump, dumping thru four doors into two wheat sinks, one corn sink and one sink in line with the feed grinder.

In the basement are the boots of the two elevator legs, a 1,000-bu. per hour sheller, Western chain feeder from sink to sheller, 5-hp. motor driving feeder and dump lift, 25-hp. motor driving the sheller by Texrope, 30-hp. motor driving the No. 2 Gruendler Hammer Mill, and 2-hp. motor operating chain feeder to hammer mill.

The two legs with 12x6 and 14x7 Salem buckets, and the manlift extend to top of cupola, where are the two Monitor cleaners, one for wheat and one for corn, each driven by a 7½-hp. motor, the heads spouting to bins or cleaners or to 6-bu. Richardson Automatic Scale, or to loading spout, or to drier bin, and the cobs to the standard cob burner 16 ft. in diameter. Outside the cupola wall are two Monitor Dust Collectors spouting to cob burner.

The No. 10 Randolph Direct Heat Drier is housed in a fire-proof building 14x15 ft., adjoining, separated by a 9-inch brick wall. The

drier gets its grain from a bin in the upper part of the elevator. In the drier building is a short elevator leg and a 7½-hp. motor with Texrope Drive.

Over one end of the driveway is an ear corn storage of studded construction, a small extension of this bin extending down to the floor of the feed grinding room. Next to the ear corn bins and over head of the feed grinding room are two small bins for screenings.

Hyatt Roller Bearings are used thruout this plant in all shafting, cleaners, sheller and boots. The ten Fairbanks-Morse inclosed ventilated motors range from 2 to 30-hp. and aggregate 117 hp.

This up to date plant was erected for the Myers Grain Co., by the Reliance Construction Company.

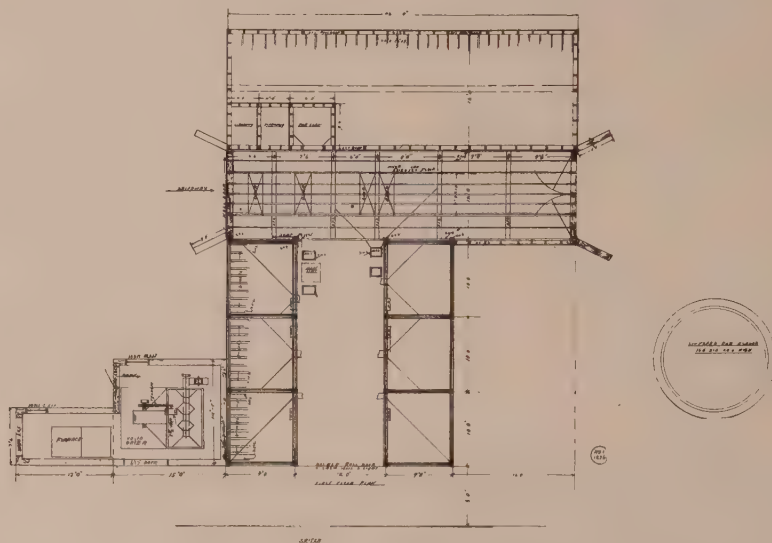
Spain.—The government has reduced by 10 per cent all freight rates on shipments of wheat within the interior of the Peninsula, states a cable from Ass't Commercial Attache E. D. Hester, at Madrid. The order carries a restriction that this rebate shall not, however, apply to the movement of imported wheat.

### The "Triad" Garlic Separator.

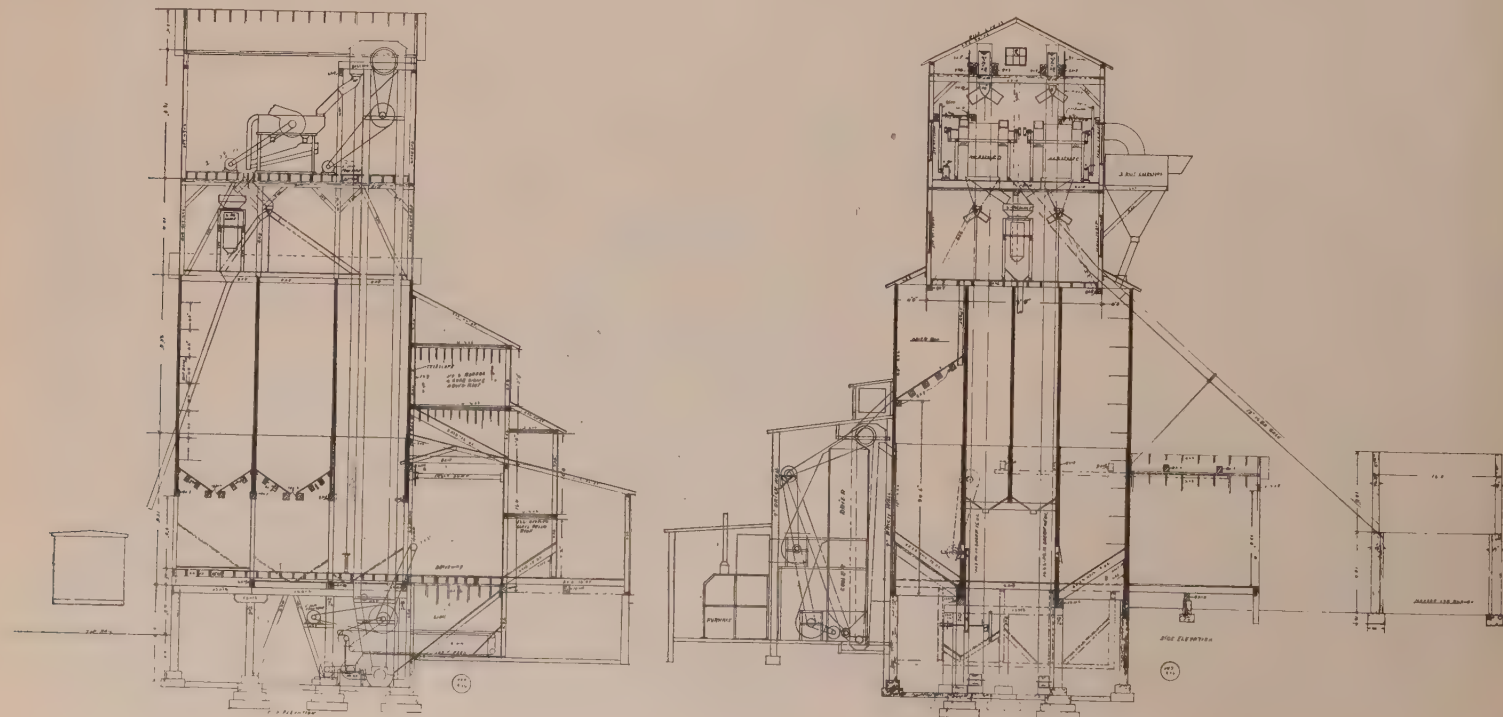
Every Grain Dealer and Miller will concede that the best and cheapest way for him to get free from the garlic or wild onion seed in wheat would be for the farmer to clean it out of his growing wheat field. However, that would take many years of very aggressive co-operation on the part of the farmers and this, on the face of things, is next to impossible. The Dealer who has succeeded in getting the cooperation of the farmers in his section to make an effort to eradicate the garlic from the growing wheat fields has done much to retard the spreading of this nationally known pest and is worthy of high commendation.

Sections where this has been accomplished are few and far between and the fact remains, "Garlic still infests the wheat fields in numerous parts of the country." It can not be eradicated in threshing and, therefore, when the Miller buys the wheat he finds no end of trouble in milling it and then can not show a profit on his flour because of the numerous shutdowns necessary for cleaning the rolls, and the discount he must allow for flour tainted with garlic.

So long as the handlers must be bothered



Ground Plan of Feed Grinding Elevator.



Cross and Longitudinal Sections of the Myers Grain Co.'s Feed Grinding Elevator at Lockbourne, O

with garlicky wheat it puts the matter squarely up to the Milling Engineers to do their utmost to help overcome the evils that necessarily follow in manufacturing garlicky wheat into flour and on this question the ever aggressive Robinson Mfg. Co., with its staff of Milling Engineers, has come to the front and designed a machine called "The Triad," meaning 3 in 1. This is a machine which is guaranteed to remove 99% or better of garlic and onions from the wheat.

Tests have proven this to be a very effective machine. The garlic and onions can not escape the principle of its operation. Green garlic is pierced, dry garlic is blown out and dry pin-head garlic passes thru a specially designed screen. The wheat coming from the machine is thoroughly conditioned for milling and compares favorably with A-No. 1 milling grade.

Aside from successfully removing garlic and onions, the Triad will do the work of two other machines operating on entirely different principles, making it a "3 in 1" machine. It is

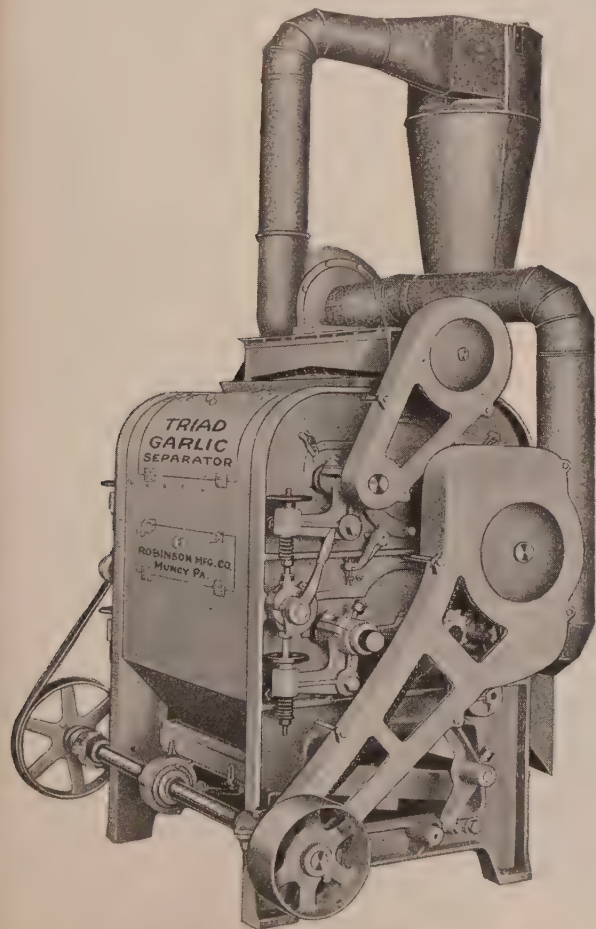
First—A Garlic Separator.

Second—It answers the purpose of a Milling Separator as it removes all foreign seeds, sticks, straws, joints and larger than wheat particles and is equipped with a sand and seed screen for removing sand and small pin-head seeds.

Third—It acts as a Scourer, removing the crease dirt. It scours the wheat berry. If used for no other purpose it would show such an improvement in the grade of flour produced that its installation would prove well worth while.

The principle of operation of this "Triad" machine is as follows: The wheat enters the machine and is distributed in a thin perfectly uniform stream over the entire length of the rolls by a conveyor feeder. The wheat passes down between two rolls—a pressure roll and a selector roll, both of which are covered with special wire carding. The pressure roll has crimped card-

[Continued on page 500.]



The "Triad" Garlic Separator.

## Reasons for Increasing Popularity of Speed Reducers

By L. P. Spillan, Mgr. Speed Reducer Division Link-Belt Co.

The initial cost is a most important item of every purchase, but it is the ultimate cost of the driving medium selected that deserves the greater study and consideration. It is this "ultimate cost," i. e. the first cost, plus the repairs, the shutdowns, the annoyances, the loss of production, etc., that determines whether the price paid for what you purchased, was a dividend-paying investment, or otherwise.

You have to consider your specific conditions. An open drive, in an atmosphere of grit, may last only a fraction of the life of a fully-encased drive running in a bath of oil. What of it, if the drive selected does have a greater first cost, if it is a drive that will last several times as long and give you much less, or no trouble during its prolonged life? Is that not the better purchase?

Ask yourself some of these questions. How efficient will the drive be? How much power will it waste thru slippage, or because anti-friction bearings are not used? Will the parts wear out quickly, if they are not enclosed, and is there any danger of workmen becoming caught in the gears? Does the drive meet all insurance regulations?

And here are some more questions. Is the drive compact enough, or does it occupy valuable floor space, a part of which could be used more profitably? Is it not a big advantage to have automatic oil-bath lubrication?

Will the drive be able to withstand shocks, or to start-up under heavy load (assuming you have such a condition)? Will it transmit power quietly, and with the smoothness required?

Your answers lead you very logically to the conclusion that here are some of the reasons

for the steadily increasing use of the modern speed reducer unit?

Examine, for example, some of the features of a Herringbone Speed Reducer employing gears of the exceptionally strong Sykes tooth form:

1. High efficiency maintained.
2. Completely housed.
3. Runs in oil.
4. Anti-friction bearings.
5. Withstands severe shocks.
6. Quiet in operation.
7. Speed ratios up to 300 to 1.
8. Neat and compact.
9. Meets all safety laws.

Figure 1 of a triple reduction Link-Belt Herringbone Reducer, complete with its oil-retaining housing, especially brings out the space conservation and "safety first" features of this form of reducing unit.

Speed reducers are widely used to drive elevators, conveyors, hoists, and so on; and their field of application will increase as the electrification of industry continues.

One big reason why Speed Reducers are being used more and more, is this: the slow speed motor, which is bulky and heavy, is considered too expensive to meet today's need of maximum economy. More high speed motors are being used—they are smaller for a given horsepower, cost less, are cheaper to install, and maintain a better power factor.

Fig. 2 should hold special interest for engineers, and users of transmission equipment. This most recent development by Link-Belt, known as a type "RC" Reducer, is a 5 H. P. unit with 10 to 1 reductions from an 850

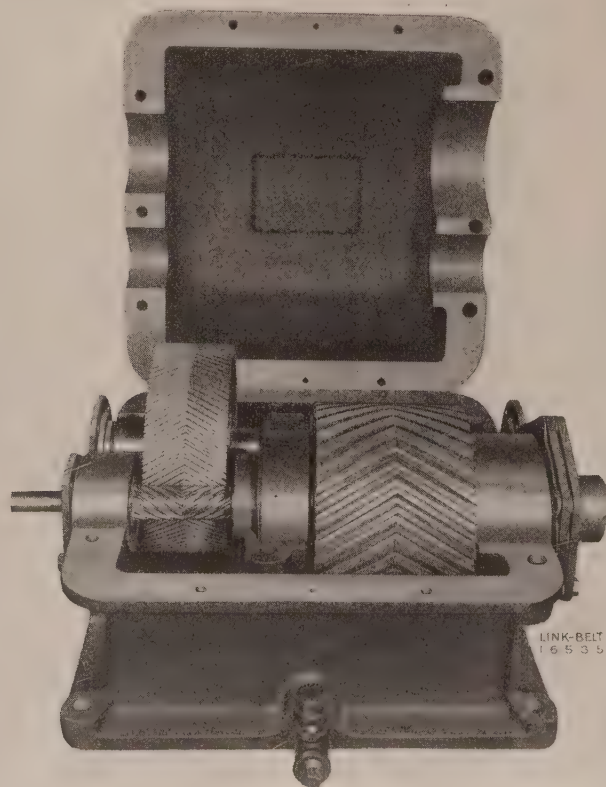


Fig. 1. Triple Reduction Herringbone Speed Reducer.

R.P.M. motor down to enclosed miter-gearred countershaft of the Caldwell screw conveyor it operates.

With the casing removed from the chain drive so that the reader may the better understand the arrangement, it can be seen that here is a simple reduction unit of low first cost and high efficiency, possessing, moreover, the fundamental advantage of an unusual flexibility in its application.

The "RC" Reducer is a combination of the standard herringbone reducer from the motor or high speed shaft, and a finished steel "RC" Class roller chain drive, separately encased and running in oil, for transmitting the power from the herringbone gear unit to the driven machine.

In addition to the usual advantages of an enclosed drive it also embodies the advantage of an open drive, in that it is possible to alter the speed of a driven machine at small expense. A mere change of the small driving sprocket effects the change in speed. A selection of sprockets can be kept at hand for the various speeds desired. The change is further expedited by the accuracy of the detachable "RC" finished steel roller chain, and the facility with which links can be removed or added to shorten or lengthen the chain.

The prime mover and high speed unit (which operated equally well in either direction) may be located either above, or below, or to either side of the driven machine. The drive machinery can be kept out of aisle space, and the supporting structure simplified as the units, in

many cases, are supportable from the same up-rights as are used for the driven machine.

As to speed reducers in general, it may be of interest, by way of example, to repeat a part of a report on the increasing use of reducer units by clay products plants:

In a plant using steam as a source of power, shafting was necessary for power transmission; but in a plant with individual-drive electric motors as a source of power, engineers have found it possible to eliminate belting and shafting almost entirely by the use of speed reducers. At the same time they have saved plant space, made the plant safer for workmen and obtained a positive drive with an exceptionally long life and almost absolute freedom from maintenance costs and repair charges. In short, clay products manufacturers have found that the application of speed reducers saved them money, space, trouble and worry.

### The "Triad" Garlic Separator.

[Concluded from page 499.]

ing which presses firmly against the selector roll and acts as a Scourer to the wheat, as the pins get into the creases and scrape off all dirt. This roll has enough pressure to force or impale all of the garlic and onion seeds and other soft material such as balls of smut, weevil eaten wheat, wild seeds, etc., on to the selector roll. A stiff wire brush roll continually acts against the selector roll and cleans off all of this soft material, brushing it into a conveyor which carries it out of the machine.

The wheat passing thru the rolls drops on to a specially designed sieve which screens out all dry, hard pin-head garlic which might have

escaped the action of the rolls. This screen also removes all sand, gravel, wild seeds and foreign materials. The wheat now passes into an air chamber where all dust, chaff, hulls, straws, and light substances are blown into an all metal dust collector and spouted into a screenings bin for use in feedstuffs. In this manner all of the garlic and worthless screenings are kept separate from the good screenings which can be used in feedstuffs.

The operation described pertains to the single machine which is ordinarily severe enough in its action to eliminate garlic from the ordinary garlicky infested wheat, but the manufacturers are prepared to supply a double machine, as shown in the illustration, having two sets of rolls placed one above the other, insuring a more complete separation for use in sections where the wheat is heavily infested.

The Triad is convenient to operate. There are adjusting hand wheels by which the rolls can be kept in perfect alignment for an even pressure over the full length. It is also equipped with a quick release lever which spreads the rolls apart when necessary. There are inspection doors in the casing for examination of the rolls or the stock coming from them. The machine presents a very pleasing appearance, is simple to install and requires little power.

The complete machine includes: Garlic Separator with screen, fan, dust collector and piping, making a complete self-contained unit. The fan and dust collecting system need not be furnished when not desired.

The dealer who installs the "Triad" not only eliminates the trouble and loss formerly encountered in handling garlicky wheat, but actually pays for the machine and makes a profit out of every carload of garlicky wheat he buys, because this type of wheat is always sold at a low price.

The manufacturers will be very glad to give further information regarding the principle and operation of this machine.

### Construction Material Prices.

Portland cement is quoted at \$2.05 per barrel at Chicago in carload lots, sacks not included. At Detroit cement is \$1.90, St. Louis \$1.95, and at Denver \$2.65.

For crushed stone the Chicago price delivered on the job by truck is \$2.25 per cubic yard. In carload lots the price is \$1.85 per ton f.o.b. Indianapolis, \$1.70 at Cleveland, and \$1.25 at St. Paul.

Sand is offered in carload lots at 60c per ton f.o.b. Indianapolis, \$1.10 at Milwaukee and as low as 35c at St. Paul. Gravel is dearer than sand at most points, being \$1.30 at Milwaukee and \$1.25 at St. Paul.

Lumber is \$24.50 per thousand board feet for Douglas fir f.o.b. mill, in the form of flooring 6 to 20 ft.; common boards, \$22.50; 2x4, smooth, 16 ft., \$20.50, Southern pine, f.o.b. mill is quoted at \$61.00 per thousand board feet for flooring 1x4, \$21 for No. 2 common 1x6 smooth; \$27 for 2x4, and \$30 for 2x10, smooth. Structural timbers of Southern pine are quoted at \$25, for 4x4 to 8x8, \$30 for 8x10 to 10x10, smooth on 4 sides in lengths of 10 to 20 feet.

Common brick are selling at \$12 per thousand delivered on the job, at Chicago, \$15.50 at Detroit; \$18 at St. Louis and \$13.50 at Indianapolis. Mason's hydrated lime delivered on the job at Chicago is offered at \$18 per ton.

Galvanized sheets are quoted at \$3.90 per 100 lbs. at Chicago for No. 24 gage delivered. Channels 3 to 15 inches are quoted at \$2.00. Hard steel bars for reinforcing are quoted at \$1.85 per 100 lbs. at Chicago Heights mills. Warehouse prices f.o.b. Chicago are \$4.80 for No. 24 galvanized sheets, and \$2.20 to \$2.25 for reinforcing bars made of billet steel. The market for metal is stronger and sales are in excess of shipments. Pig iron is cheaper than it was a year ago, but finished steel is unchanged from last year at the middle of April.

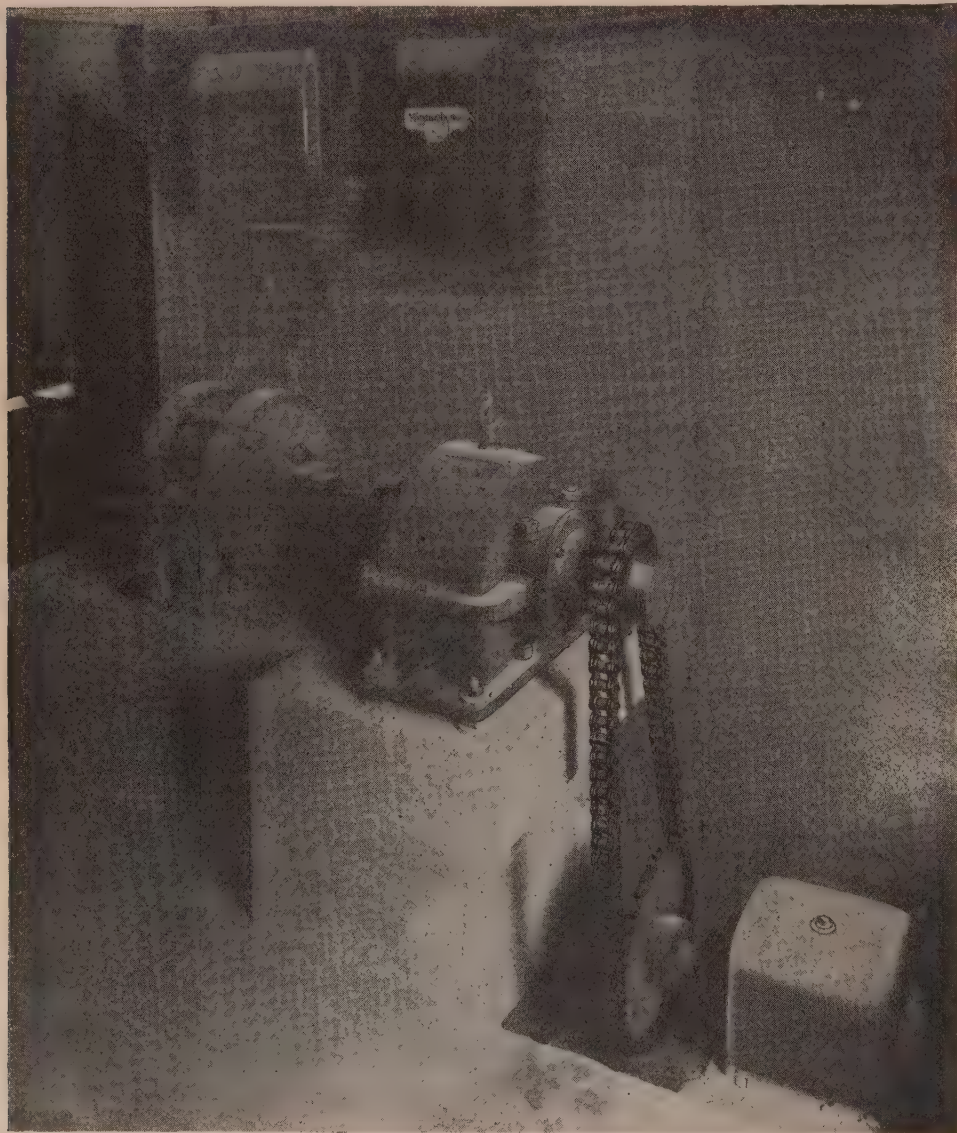


Fig. 2. Type R C Speed Reducer, Giving a 10 to 1 Reduction.  
[See facing page.]

# Grain Trade News

Reports of new firms, changes, deaths, casualties and failures; new elevators, new flour mills, improvements, fires and accidents are welcome. Let us hear from you.

## CALIFORNIA

Woodland, Cal.—Arthur Dausat has opened a grain and rice brokerage office.

Stockton, Cal.—The elevators of the Sperry Flour Co., having a capacity of 185,000 bus., have been bot by the Taylor Mlg. Co.

San Francisco, Cal.—A general meeting of the Grain Trade Ass'n was held April 17 to devise ways and means of increasing trading activities on the cash and future markets of the local grain exchange.

## CANADA

New Westminster, B. C.—The McLean Grain Co. expects to erect a new warehouse soon.

Winnipeg, Man.—James Richardson & Sons, Ltd., will open a branch brokerage office in the Garry Hotel. V. A. Colquhoun will be in charge.

Mervin, Sask.—The elevator of the Brooks Elvtr. Co., Ltd., was partly destroyed by fire Apr. 14. About 25,000 bus. of grain were in the house and the loss is estimated at \$25,000, all covered by insurance.

Montreal, Que.—Joseph Quintal, aged 64 years, well known in the local grain trade, died recently after a brief illness. Mr. Quintal was in the grain business since 1887. In 1902 he formed a partnership with F. W. Lynch and the firm operated until 1926 when Mr. Quintal assumed sole ownership.—P. F.

Montreal, Que.—G. A. Beaulieu of Montreal and B. J. Bolan of Portland, Me., have formed a partnership and will conduct a general grain and freight brokerage business with offices in the Board of Trade Bldg. Mr. Bolan was chief grain inspector at Portland for a number of years. The firm name will be Beaulieu & Bolan.

Toronto, Ont.—Our new elevator will be about 300,000 bus. in capacity and the malting plant will have a capacity of 1,000,000 bus. The contract for the foundation has been let to the Atlas Construction Co. and work is now under way. We expect to have the plans for the super-structure completed towards the end of the month when we will call for tenders.—A. C. Matthews, Canadian Malting Co.

Port Arthur, Ont.—The Saskatchewan Co-op. Wheat Producers, Ltd., has awarded the contract for its terminal elevator to the Barnett-McQueen Construction Co. The new plant will have a total capacity of 6,900,000 bus., consisting of 6,000,000 bus. storage and a workhouse of 900,000 bus. The car shed will contain five tracks. The elevator will take delivery of 390 cars of grain in 10 hours, and in the rush season 500 cars per day. Its shipping capacity will be 150,000 bus. per hour. Cleaning and drying capacity will be 1,000 bus. per hour.

Winnipeg, Man.—Many of the western members of parliament, as well as some others, have been raising questions with regard to the advisability of a further loan of 8½ million dollars to the Quebec Harbour Commission for the improvement of facilities at that port. Unfortunately, the theory prevails in Canada, in official circles and with a large proportion of the public, that if enough money is spent on a port, traffic can be proportionately developed through it. Traffic moves according to laws of its own and not according to the length of docks or even the number of elevators. Western Canada has every goodwill toward the port of Quebec, but Quebec has never been and is not today a factor of real importance in respect to the movement of western products. The special freight rates recently granted to Quebec have not so far accomplished any useful result. The worst of it is that all Canadian tax payers, including those in Western Canada, must bear the cost of all uneconomic investments, and the money spent in those investments is not available for employment in other ways that might do much more good.—Grain Trade News.

Montreal, Que.—The new addition to the Montreal Harbour Commissioners' elevator on Tarte Pier is progressing rapidly and it is expected to be completed by August. The new addition will have a capacity of 3,000,000 bus.—P. F.

North Vancouver, B. C.—The Midland Pacific Terminals, Ltd., announced at the office of Randall, Gee & Mitchell, Ltd., that a contract has been awarded to the Northern Construction Co. and J. W. Stewart for a 500,000-bu. elevator. Construction work will start at once and be completed by Sept. 20.

## COLORADO

Briggsdale, Colo.—We are contemplating installing a truck and wagon dump.—H. B. Hoffman, mgr., Farmers Co-op. Elvtr. Co.

## IDAHO

Pocatello, Ida.—Mail addressed to the Farmers Grain & Mlg. Co. has been returned marked "Out of Business."

Buhl, Ida.—The Buhl Elvtr. Co. is building a two-story bean warehouse on the lots acquired when the company took over the Farmers Elvtr.

## ILLINOIS

Nekoma, Ill.—The Yocum Grain Co. is closing its elevator.

Princeton, Ill.—The E. W. Hopkins Grain Co. will remodel its elevator.

Malta, Ill.—A. Theo. Peterson plans construction of new coal sheds this summer.

Sandwich, Ill.—Geo. W. Reinhard has resigned as manager of the Farmers Elvtr. Co.

Orion, Ill.—N. A. Ekstadt has been re-elected as manager of the Farmers Elvtr. Co.

Millington, Ill.—Harry V. Weeks has bot the Millington Farmers Grain & Supply Co.

Villa Grove, Ill.—F. J. England has been retained as manager of the Farmers Elvtr. Co.

New Douglas, Ill.—The plant of the Prange Mlg. Co. was damaged by a recent windstorm.

Benson, Ill.—G. W. Roberts has succeeded Chas. Bongas as manager of the Farmers Elvtr. Co.

Freeport, Ill.—The H. A. Hillmer Co. is considering installation of a large capacity feed mill.

Delavan, Ill.—The Farmers Elvtr. Co. will install an electrically driven feed grinder and mixer.

Kirkland, Ill.—We recently installed a new 10-ton truck scale.—G. L. Banks, Geo. W. Banks & Son.

Streator, Ill.—Myron Stotler of Stotler Grain Co. is on a pleasure trip thru the south and southeast.

LaSalle, Ill.—The flour and feed warehouse and office of H. F. Caskey burned recently with a loss of \$40,000.

Richards (Streator p. o.), Ill.—Graham Grain Co. is considering installation of new individual head drives in its elevator.

Chicago Heights, Ill.—Joe Lindner has completed a 5,000-bu. elevator. It is of frame construction and covered with sheet iron.

Chestnut, Ill.—I have bot the property of the Mt. Pulaski Grain Co. I was formerly manager of the Farmers Grain Co.—H. M. Norris.

Kewanee, Ill.—The Farmers Co-op. Elvtr. Co. has had the scales at all of its stations tested and corrected by Fairbanks Test Truck No. 6.

Egan, Ill.—A new 10-ton truck scale has been installed in the H. A. Hillmer Co. elevator here. General repairs are being made to the structure and an attrition mill may be installed later.—H. A. Hillmer.

Bolton, Ill.—The feed and seed warehouse of the Rosenstiel & Co. elevator here has been rebuilt, increasing its capacity to three times that of the old.

Dry Grove (Bloomington p. o.), Ill.—The Farmers Grain Co. has had its weighing machinery repaired and tested by Fairbanks Test Truck No. 6.

Davis Junction, Ill.—I plan to install an electric motor this year and may put in roller or ball bearings if the prospective crop warrants.—H. Lew Mathre.

Arthur, Ill.—The Ass'n of Commerce recently acquired the Paul Kuhn Elvtr. and is wrecking the plant. The site will be used for a milk condensing plant.

Yorkville, Ill.—Installation of a new feed mill is contemplated by Jeter & Boston in their elevator. The present mill is proving too small for a growing grinding business.

Ontarioville, Ill.—I bot the grain, coal and feed business formerly operated by Herman Hattendorf last February and took possession at that time.—Herman Lichthardt.

Harper (Forreston p. o.), Ill.—A Blue Streak hammer mill and a 6-cylinder gas engine to operate it, are being installed by the Harper Grain Co., Inc.—Ernest Drake, mgr.

Herscher, Ill.—The Appel Siding (Herscher p. o.) Farmers Elvtr. Co. has bot the property of Thos. Crawford. A new elevator of glazed tile will replace the present structure.

Woodhull, Ill.—The Woodhull Grain Elvtr. Co. will lower and re-floor its driveway, make the boot pit waterproof and repair its machinery. The work will be done by Geo. W. Quick & Sons.

Joliet, Ill.—The grain trade of this territory held its regular meeting the evening of April 19 in the Chamber of Commerce Bldg. Gilbert Ament, an experienced seed man, discussed the seed corn situation.

Lanesville, Ill.—The LeGrand Grain Co. incorporated; capital stock, \$10,000; to deal in grain, feeds, salt, fence materials and gravel; by Henry Lewis LeGrand, Maude A. LeGrand and J. S. Guthridge.

Polo, Ill.—Mr. Hedrick has sold his interest in the firm of Typer & Hedrick. William Typer is now the sole owner. The elevator continues to be operated under the old name. William Donaldson is manager.

South Ottawa (Ottawa p. o.), Ill.—General repairs including new spouting, a new drain in the elevator pit and reconstruction of the corn crib, is contemplated by the South Ottawa Co-op. Grain & Supply Co.

Burnett (Buda p. o.), Ill.—The Farmers Co-op. Elvtr. Co. is remodeling the leg in its elevator, putting in concrete waterproof boot pit and waterproof concrete dump sink. Geo. W. Quick & Sons are doing the work.

Tazewell (Minier p. o.), Ill.—The Minier Co-op. Grain Co. has let a contract to Eickenberry & Temple for a 15,000-bu. cribbed steel clad elevator. A 10-h.p. Fairbanks-Morse Engine will furnish the power.

Somonauk, Ill.—The Farmers Elvtr. Co. has bot a new Kewanee all-steel truck lift and a 9-ft. Kewanee steel grate. A new Fairbanks 10-ton type S truck scale is being installed to replace their old wagon scale.

Lee, Ill.—W. F. Reynolds, proprietor of the Lee Grain & Lumber Co., has sold his elevator and lumber properties to E. A. Johnson & Co., who will continue to operate them in connection with its present business.

New members of the Illinois Grain Dealers Ass'n are: E. J. Overlay, mgr., Farmers Square Deal Grain Co., Morris; Farmers Grain Co., Piper City; and the Culbertson Grain Co., Grand Ridge.—Sec'y W. E. Culbertson.

Stillman Valley, Ill.—We have installed a 26-in. Monarch Attrition Mill with two 30-h.p. Westinghouse Motors and a No. 10 Monarch Corn Crusher run by a 15-h.p. Westinghouse Motor. One of the former large storage bins in our elevator has been transformed into a grinding room and the elevator driveway has been extended to inclose wagons taking ground products from the service spouts. Two bins have been built at the top of this room, one for grain to feed into the hopper of the mill, the other to hold the milled products. A meal leg has been installed to serve the latter and spouting from this bin directs the products either into the farmer's wagon or into sacks by means of cut-off valves, as may be desired.—J. A. Shewman, mgr., Griffith Lumber Co.

Gridley, Ill.—Boles & Blessman are remodeling their elevator and installing anti-friction bearings, two Strong-Scott Truck Dumps and two Fairbanks-Morse Ventilated Enclosed Motors. Eickenberry & Temple have the contract.

Gilman, Ill.—The regular meeting of the grain trade of this territory was held the evening of April 19 in the I. O. O. F. hall. The Shipstead Bill, S-2533, was discussed. John Collier, farm adviser of Kankakee county, addressed the gathering.

Rockford, Ill.—J. G. Chick Mfg. Co. closed its doors early this month and the property is now lying idle. E. C. Coppins, the former manager, and his nephew, W. E. Coppins, have opened a wholesale and retail establishment under the name of the latter, dealing principally in flour and feed.

Argenta, Ill.—The A. & O. Grain Co. is building a 35,000-bu. cribbed, steel clad elevator with two legs and a 15,000-bu. crib, Western Cleaner, 500-bu. hopper scale, and a Maroa Car Loader. A 40-h.p. steam plant will furnish power and all shafts and heads will be equipped with Hyatt Roller Bearings. The Decatur Construction Co. has the contract.

Leland, Ill.—Edw. H. Farley plans to reopen his elevator about May 1 and is now preparing it for operation. A new 10-ton truck scale and a truck dump are being installed. For some years past the house has been leased for storage purposes by the Leland Farmers Co., but the grain business has so increased that Mr. Farley feels this is a propitious time to reopen under his own name.

Sycamore, Ill.—The Sycamore Farmers Grain & Lumber Co. is tearing down the elevator on the C. & N. W., which was bot from Geo. Eddy several years ago. The company is building a new 45x60 ft. iron-clad feed warehouse. Plans are in preparation for new iron-clad coal sheds with concrete base and bin walls. The company has purchased a Chicago portable automatic conveyor for loading and unloading coal.—I. D. Banker, mgr.

Cairo, Ill.—Samuel Hastings has rebuilt the shelling and cleaning warehouse adjoining his elevator. The new structure is of concrete and houses one steel leg, two special U. S. Roller Bearing Shellers for snap corn, separator, Richardson Automatic Scale and two Fairbanks-Morse Ventilated Enclosed Motors. 75 and 5 h.p. Leg and transmission machinery was furnished by Webster Mfg. Co. Eickenberry & Temple had the contract.

Leland, Ill.—The coal sheds of the Leland Farmers Co. are being rebuilt and the capacity increased. Seven bins with concrete floors and sides are replacing the old structure. These are being roofed with a metal covered framework extended to create a covered drive on each side. Dimensions are given as 112x40 feet. The bins set 12 feet from the side-track. It is planned to purchase a portable unloader for this part of the business.—F. H. Hill, mgr.

Joliet, Ill.—I am sure we have three exceptional numbers for the 35th annual convention of the Illinois Grain Dealers Ass'n to be held here May 10 and 11 in the addresses of V. E. Butler, Frank J. Delany, and the Hon. Floyd E. Thompson. The grain trade will have a good time in Joliet for the local com'ite is going to entertain the ladies with theater parties and other entertainment, and one sightseeing trip that everybody will find interesting will be the visit to the Northern Illinois Penitentiary.—W. E. Culbertson, sec'y.

Rock City, Ill.—Work is being completed on the reconstruction of the elevator and lumber yard properties of Graham Bros. Co. here. Fire occurring from an explosion in a garage on April 6, communicated itself to several of the nearby buildings including the Graham Bros. property. Lack of sufficient fire-fighting apparatus permitted total destruction of these buildings. The new elevator is a modern 8,000-bu. studded and iron-clad structure with eight bins. Elevating machinery was supplied by Kewanee Implement Co. Power is supplied by a 7½ h.p. G. E. motor operating line-shafts. Weighing is done over a 10-ton truck scale. A screw conveyor from the elevator boot to the track side of the building is arranged for unloading and elevating in-bound cars of grain, this being an extensive feeding section. The local hardware man, whose building was destroyed in the same blaze, decided to go out of business, so Graham Bros. have added hardware to their list of sidelines handled here.—John Graham.

Lostant, Ill.—The Lostant Grain Co. is installing three Kewanee Truck Lifts, lowering its driveway and boots and raising the head pulleys, in addition to other overhauling.—John McLuckie, sec'y-treas., Lostant Grain Co.,

#### CHICAGO NOTES.

James Eblin has applied for membership in the Board of Trade.

Fred H. Clutton, new sec'y of the Board of Trade, began his duties April 16.

The Corn Products Refining Co. has moved its office to 333 North Michigan Ave.

A Board of Trade membership sold for \$12,000 on April 24, the highest price on record.

The Wabash Elvtr., operated by Bartlett, Frazier & Co., has installed a 750-bu. drier.

Geo. F. Swenson, who has been occupying space in the office of Hitch & Carder, has moved to Room 45, Board of Trade Bldg.

Edward P. Mueller, for 40 years a grain broker in Chicago, died April 22 at the home of his daughter in Milwaukee. He was 66 years old.

John Lowrie Patten, a member of the Board of Trade and only son of James A. Patten, was married April 11 to Mrs. Renee Michael Hutchins.

James E. Bennett & Co. is taking over the west half of the north wing on the fifth floor of the Postal Telegraph Bldg., which will give the firm considerably more space.

A. C. Curry, who formerly operated on joint account through Hitch & Carder, has established headquarters in the Traders Building and will hereafter conduct his business in his own name and alone.

John E. Anderson, who has been connected with Hitch & Carder for the past thirteen years, has joined E. J. Feehery & Co. Mr. Anderson takes the good will and all of the open accounts with him to his new connection. He will be in a position to render customers the same splendid service accorded in the past.

Hitch & Carder discontinued activities in the grain commission business as of April 24. Mr. Hitch sold his membership on April 23 for a new high price of \$11,500. Mr. Hitch's health has not been the best, so he intends to rest and recuperate for the balance of the chilly Spring. Mr. Carder died last October 22. The firm was engaged in business for somewhat over fifteen years.

A supplementary cyclone dust collecting system is now being installed in the Annex of the Santa Fe Elevator operated by the Stratton Grain Co., where windows are also being enlarged to permit better ventilation. A new dock has just been completed and the slip dredged in preparation of an active shipping season. Three No. 11-B. Monitor Separators, three No. 11 Monitor Clippers and an Emerson Cylinder Separator of terminal elevator size, were also recently installed in this 1,350,000-bushel house. This latter installation gives the plant a battery of five separators and six clipppers, besides the Emerson Cleaner.—Martin Schultz, superintendent.

#### INDIANA

Rockville, Ind.—The plant of Rohm Bros. was slightly damaged by fire recently.

Bicknell, Ind.—The O. L. Barr Grain Co. is installing a new Humdinger Hammer Mill.

Sweetser, Ind.—The Farmers Elvtr. Co. is receiving offers on the sale of its elevators.

Tipton, Ind.—We have completed installing new and improved dumps.—Tipton Mfg. Co.

Newburgh, Ind.—The plant of C. W. Brizius Co. was slightly damaged by a windstorm recently.

New Palestine, Ind.—The New Palestine Grain Co. has installed a large Sidney Roller Bearing Corn Sheller.

Pendleton, Ind.—The elevator of Pritchard & Rafert is being repaired by the Reliance Construction Co.

Lowell, Ind.—E. George Taylor of Shelby has succeeded Miss Lettie Powell as manager of the Lowell Grain Co.

Kokomo, Ind.—A local meeting of grain dealers and millers was held at the Courtland Hotel the evening of April 23. Among topics discussed at the meeting was that of railroad leases. The meeting was under the auspices of the Indiana Grain Dealers Ass'n.

Gas City, Ind.—A receiver has been appointed for the Gas City Feed & Grain Co., of which W. R. Brock is owner.

LaOtto, Ind.—The Nathan Grain Co. has just installed a Gruendler Hammer Mill with 50-h.p. direct connected motor.

Oaklandon, Ind.—Thomas E. McCord, aged 70, who operated an elevator near here for a number of years, died recently.

Roseburg (Marion p. o.), Ind.—C. W. Burnside has succeeded Howard Hoggatt as manager of the Farmers Co-op. Co.

West Baden, Ind.—Logan & Bryan have opened an office here in the West Baden Springs Hotel. Russell Carney is in charge.

Bluffton, Ind.—H. H. Deam has resigned as manager of the Studebaker Grain & Seed Co. and will enter the real estate business in Gary.

Paragon, Ind.—Perry M. Blankenship, aged 70, for many years a local grain dealer, died recently in Indianapolis. The body was brought here for burial.

Dundee (Orestes p. o.), Ind.—The new elevator erected by Leroy Urmston on the site of the one that burned in September is now completed and ready for business.

Millgrove, Ind.—W. A. and C. A. Brown have bot the local mill and will operate as Brown Bros. The elevator which burned in October, 1922, will be rebuilt.

Marion, Ind.—A short circuit in the wiring was responsible for a fire which damaged the plant of the Indiana Flour & Feed Co. to the extent of \$5,200. The loss was mostly covered by insurance.

Jeffersonville, Ind.—John Gienger, Luther C. Childs, Henry J. Volmer and C. E. James have organized a firm to be known as John Gienger & Co., which will conduct a grain, produce, feed and seed business.

Indianapolis, Ind.—Jerry Garvin, colored, was killed at the starch plant of Piel Bros., when buried beneath shelled corn in a tank containing about 39,000 bus. His duty was to direct with a shovel the course of the shelled corn as it passed into chutes in the tank.

Redkey, Ind.—Emery Kemper of Ansonia, O., has bot a half interest in the Stafford Grain Co. and will manage the business under the name of the Kemper-Stafford Co. J. S. Woodring, who has had charge of the elevator since the death of Mr. Stafford, has been transferred to Blaine, Ind.

Ade (Brook p. o.), Ind.—The Farmers Co-op. Co. will build a cribbed steel clad elevator with 20,000 bus. capacity and storage for 13,000 bus. of ear corn and a Randolph Drier. The house will have five legs, including the drier leg, and equipment will include a Richardson 10-bu. Automatic Scale, two truck dumps, Western Sheller and Cleaner, five Fairbanks-Morse Enclosed Ventilated Motors and Link Belt Silent Chain Drives. Anti-friction bearings will be used thruout. Geo. Saathoff has the contract.

#### IOWA

Hardy, Ia.—The Farmers Elvtr. Co. is considering installing a mill.

Humeston, Ia.—A Humeston & Sons are erecting a feed storage building.

Eddyville, Ia.—The Frank Hoesel Elvtr. Co. is installing a Munson Superior Batch Mixer.

Remsen, Ia.—G. A. Null has been reappointed manager of the Farmers Co-op. Co. for the eighth year.

Chester, Ia.—E. A. Highum of Brownsdale, Minn., is the new manager at the elevator of the Hunting Elvtr. Co.

Fontanelle, Ia.—Burglars entered the office of the Farmers Co-op. Elvtr. Co. recently but were unable to open the safe.

Eldridge, Ia.—The Farmers Elvtr. Co. has employed a poultry expert to give free advice on problems of poultry raising.

Sioux City, Ia.—The Grain Exchange has opened for business in its new location on the sixth floor of the Warnock Bdg.

Mount Auburn, Ia.—The Home Lumber Co. has bot the elevator of the Wilder-Murrell Grain Co. J. A. Meeks will be manager.

Sioux City, Ia.—The writer, who has been with the Akron Mfg. Co. the past 35 years, sold out his interest in December and is opening a wholesale grain and feed business.—E. A. Fields, Fields Grain & Feed Co.

Primghar, Ia.—Turner Bros. have installed a truck dump at their local plant, the work being done by the Younglove Engineering Co.

Harris, Ia.—Herman Umland, manager for the Davenport Elvtr. Co. for the past 14 years, has resigned and bot a local billiard parlor.

Cumberland, Ia.—Turner Bros. have had their driveway rebuilt and installed a Kewanee Truck Dump. The Younglove Engineering Co. did the work.

Lawton, Ia.—Hans Bremer has installed lightning protection on his recently completed elevator. The work was done by the Younglove Engineering Co.

Harlan, Ia.—The plant of the Harlan City Roller Mills was damaged by fire recently. The burning out of a generator is believed to have been the cause.

Titonka, Ia.—Hinckley Head Drives and GE Motors will be installed in the North Iowa Grain Co.'s elevator. The T. E. Ibberson Co. will do the work.

Craig, Ia.—The Farmers Elvtr. Co. has had some remodeling and repair work done and a 15-ton Fairbanks Scale installed by the Younglove Engineering Co.

Des Moines, Ia.—The Inland Mfg. Co.'s plant, formerly the Falcon and Red Crown Mills, will be put in operation about May 1. A. L. Goetzmann will be manager.

Watkins, Ia.—The Watkins Grain Co. has bot the local elevator of the Quaker Oats Co. and now operates the only elevators here. Chas. Vonous is the manager.

Soldier, Ia.—We have bot the stock of Tom Pearson, who has been operating the elevator of Geo. Johnson, and rented the elevator and feed house.—Britton & Evenson.

Midland (Rock Rapids p. o.), Ia.—The Farmers Elvtr. Co. has filed a petition asking for dissolution of the corporation. The elevator of the firm was sold in September, 1926.

Oakwood (Marble Rock p. o.), Ia.—The safe in the office of the Farmers Grain Ass'n was robbed of \$85 recently. Checks in the safe, amounting to \$2,000, were not disturbed.

Audubon, Ia.—The Audubon Mfg. Co., for which the estate of V. L. Culver, late owner, asked \$40,000 about a year ago, was sold for one-tenth of that sum. The new owner is Chas. Sunberg.

Ellsworth, Ia.—Reynolds & Rude have dissolved partnership. Mr. Rude has bot the interest of Mr. Reynolds in the elevator and will conduct the business under the name of the Ellsworth Grain Co.

Olin, Ia.—The Jurgensen Lumber & Grain Co. incorporated; capital stock, \$100,000; Fred H. Jurgensen, pres. and sec'y. The new company is a combination of the Jurgensen Grain Co. and the Olin Lumber Co.

Gowrie, Ia.—The feed mill operated by Aaron Peterson has been moved to the site of the Bruntlett elevator and hereafter Bruntlett and Peterson will combine in operating the feed mill under the firm name of Gowrie Mfg. Co.

Ames, Ia.—The state board of education has decided to postpone the letting of the contract for the construction of a granary at Iowa State College. It was the belief of the board members that the bids submitted were too high.

Boxholm, Ia.—The Farmers Elvtr. Co. is building an addition to its plant to house a Gruendler Hammer Mill which will cost in the neighborhood of \$6,000. P. D. Vetter will be in charge of the grinding. Wilbur Lowry is the manager.—Art Torkelson.

Newhall, Ia.—John Fitzgerald, manager of the elevator of Kaerberle & Co., escaped serious injury recently when a plank placed on the grain car step from the elevator slipped off causing him to fall eight feet between the car and the elevator, striking his back on sharp ice.

Sioux City, Ia.—Chas. Cowles, 33, is in a serious condition from being blinded by an electric flash at the elevator of the Flanley Grain Co. He was putting in fuses when there was a short circuit and a flash. It is believed his eyesight will not be permanently lost, altho it is temporarily.

Colo, Ia.—The North Iowa Grain Co. will build an iron clad warehouse 80 ft. long and an office building. New coal sheds will also be built. The elevator will have added storage bins, new roofs, Hinckley Head Drives with Fairbanks-Morse Motors, the work to be done by the T. E. Ibberson Co.

Nevada, Ia.—Davis Bros. & Potter have taken over the elevator and business of O. L. Dunkelbarger. B. Corbin is the manager.

Sioux City, Ia.—Com'ites to complete arrangements for entertaining the Western Grain Dealers Ass'n at Sioux City May 1 and 2 have been appointed by Chas. C. Flanley, pres. of the Grain Exchange. S. P. Mason is general chairman. The com'ites are: Hotels and accommodations, Freeman Bradford, A. D. Doherty and E. O. Prescott; banquet and speakers, J. C. Mullaney, John Cathcart and Mr. Mason; women's entertainment, Mr. and Mrs. L. J. Nelson and Mr. and Mrs. H. S. Nevillier; trading room lunch, W. H. Marriott, R. A. Swenson and Paul Larson; golf, J. S. Eales and Michael King.

Clemons, Ia.—The tile elevator of the Farmers Elevator Co. suffered from fire recently. During the day the motor was discovered to be on fire but it was extinguished and no one was stationed in the plant to watch for another outbreak of the flames. During the night the fire started again. The supports of the automatic scale and the motor were of wood and the burning embers fell down into the bins and set fire to the grain. The falling motor hit a bin valve and started grain to running to work floor and in this flow of grain burning embers were carried to the first floor. Firemen were without ladders long enough to gain access to cupola, so were unable to extinguish the fire there but kept it from spreading to the lower floor.

## KANSAS

Hanover, Kan.—L. G. Blaksly has bot the elevator of F. L. Ferguson.

Ellinwood, Kan.—The Wolf Mfg. Co. has installed a Fairbanks Truck Scale.

Eureka, Kan.—R. E. Teichgraber's plant was slightly damaged by a windstorm recently.

Ashton, Kan.—The Lewellyn Grain Co.'s plant was damaged by the windstorm of April 4.

Ada, Kan.—The Jackman Roller Mills plant was slightly damaged by windstorm recently.

Penalosa, Kan.—The Farmers Elvtr. & Mercantile Co. has bot the elevator of A. E. Dickhut.

Huron, Kan.—The Farmers Elvtr. Co. has equipped both its elevators with lightning protection.

Burden, Kan.—The elevator of Chester E. Harris was damaged by the windstorm of April 4.

Garfield, Kan.—M. A. Gleason of Kinsley has bot the Dodge City Coal & Grain Co.'s local elevator.

Kanapolis, Kan.—A windstorm slightly damaged the elevator of the Red Star Mfg. Co. recently.

Belle Plaine, Kan.—The elevator of the Bartlett Grain Co. was wrecked by a severe storm on April 4.

Bison, Kan.—The plant of the Shellabarger Mill & Elvtr. Co. was slightly damaged by a recent windstorm.

Milan, Kan.—The plant of the Larabee Flour Mills Corporation suffered a small loss from a recent windstorm.

Canton, Kan.—P. A. Solomon, formerly of Shook, is now manager of the Farmers Co-op. Grain & Supply Co.

Wilson, Kan.—The safe in the Farmers Grain Co.'s office was robbed of a few dollars and some checks recently.

Vermillion, Kan.—I am putting in all new wire conduit with everything in the electrical line enclosed.—G. J. Ingman.

Sterling, Kan.—The Arnold Mfg. Co. has awarded contract for additional wheat storage to be completed for the new crop.

Mercier, Kan.—The Heald Grain Co. of St. Joseph has bot the plant of the Farmers Elvtr. Co. and will take possession May 1.

Rexford, Kan.—L. J. Warner, formerly manager of the Equity Union Grain Co. at Dresden, is now manager of the Foster Elvtr.

Reserve, Kan.—Lee Green and Robert H. Corneison, who recently bot the elevator of C. E. Stewart, will take possession June 1.

Baldwin, Kan.—The foundation of the elevator being built by Will Hey has been started. Machinery has been ordered and it is expected the plant will be in operation for the new crop.

Zenith, Kan.—The Zenith Grain, Livestock & Mercantile Co. has bot a special elevator leg including a motor from the White Star Co.

Murdock, Kan.—The Red Star Mfg. Co. of Wichita has bot the elevator of the Southwest Grain Co., of which M. A. Richardson is manager.

Hutchinson, Kan.—We are moving our general office from Hutchinson to Wichita, Kan., on May 6.—R. W. Payne, Consolidated Flour Mills Co.

Salina, Kan.—Ralph Vestal has been appointed manager of the local office of the B. C. Christopher Grain Co., succeeding Fred W. Elder, resigned.

Erie, Kan.—We expect to install a new air dump, drags, truck scales and add to our building. We have recently installed a feed mill.—Johnson & Son.

Fowler, Kan.—The elevator of the Gano Grain Co. is closed temporarily for repairs. It is reported that the company is considering building a new house.

Padonia, Kan.—W. R. Browning has just completed repairing his elevator and installing a new truck scale. The Van Ness Construction Co. did the work.

Beloit, Kan.—The Mitchell County Farmers Union has installed new cleaners in its elevators at Beloit, Cawker City, Hunter, Tipton, Glen Elder and Scottsville.

Cairo (Cunningham p. o.), Kan.—W. S. Greer is moving an elevator from Toronto here and will rebuild it in Cairo. He has bot a new truck scale from the White Star Co.

Hutchinson, Kan.—A new company, formed by Bruce Young, present treas. of the Consolidated Flour Mills Co., will build a 200,000-bu. elevator of the tank type. Officers and directors of the new company will be announced soon.

Palmer, Kan.—J. M. Decker is putting iron covering on his elevators here, at Day, Scottsville and Lenora. He is also installing manlifts and truck dumps where the plants are not so equipped, and giving all houses a general overhauling.—W. Y. Jones.

Wichita, Kan.—The Board of Trade is moving its headquarters from the sixth to the fifth floor of the Wheeler-Kelly-Hagney building which has housed the organization for some years. More room and better accessibility are given as the reasons for the change.

Hutchinson, Kan.—Notwithstanding many Kansas elevators are protected with standard lightning rod equipment we knew of seven which were struck by lightning last year, as follows: Emporia, Kan., Rice Grain Co. (some time in May); Larned, Kan., Bowen-Oglesby Co., May 7; Erie, Kan., Johnson & Son, May 5; Belleville, Kan., E. A. Fulcomer & Son, July 20; Bellefont, Kan., C. D. Jennings, Aug. 1; Williamsburg, Kan., Mid-Continent Grain Co., July 28; Republic City, Kan., Dan Rickel (some time in October). Inasmuch as standard lightning rod equipment will protect the grain elevators and their contents from lightning, every elevator owner can well afford to equip his plant with the best lightning rod equipment obtainable. As the fire insurance companies give a sufficient reduction in the rate to pay for the protection in a few years, there seems to be no excuse in any elevator owner going without rods.

## MARYLAND

Baltimore, Md.—Thomas Johnston, head of the grain firm of Thos. Johnston & Co., died Apr. 11 at the age of 71. He had been suffering from a general breakdown for some weeks.

Baltimore, Md.—Edward D. Legg of Legg & Co., is recovering at the Johns Hopkins hospital from the effects of an injury to his head, sustained in a recent automobile accident in which his car was struck by a taxicab.

## MICHIGAN

Pompeii, Mich.—Chatterton & Son are installing a one-ton Superior Batch Mixer.

Caledonia, Mich.—The Farmers Elvtr. Co. is installing a 2,000-lb. gear driven Superior Batch Mixer.

East LeRoy, Mich.—Homer Nelson, aged 55, local grain dealer, was found dead in his office recently.

Bad Axe, Mich.—I expect to build one or two grain and bean elevators this year.—Ray Thomas.

Hamilton, Mich.—The Hamilton Farm Bureau Co-op. Ass'n has installed a 2,000-lb. Munson Superior Batch Mixer.

Owosso, Mich.—The Lewellyn Bean Co. has closed its plant indefinitely due to the death of its manager, Archie Brown, from monoxide poisoning.

Grand Rapids, Mich.—The office of Logan & Bryan here will soon move into new quarters, the building which will house them in the near future being under construction at the present time.

## MINNESOTA

Hanover, Minn.—The Hanover Mfg. Co. has filed a petition in bankruptcy.

Vernon Center, Minn.—H. Grothberg has bot an old store building and will convert it into an up-to-date feed mill.

Lamberton, Minn.—Thieves entered the office of the Eagle Roller Mill Co. and damaged the safe without opening it.

Minneapolis, Minn.—The Grain Shippers Ass'n held its monthly meeting the evening of Apr. 16 at the New Nicollet Hotel.

Ghent, Minn.—The Atlas Elvtr. Co. has installed a Strong-Scott Dump and scale. The work was done by the T. E. Ibberson Co.

Brushvale, Minn.—The Farmers Elvtr. Co. is installing a Strong-Scott Truck Lift. The Hogenson Construction Co. is making the installation.

Minneapolis, Minn.—Frank Peavey Heffelfinger has been admitted to membership in the Chamber of Commerce on transfer of E. N. Bradley.

Essig, Minn.—The Eagle Roller Mill Co. will install a Fairbanks-Morse Scale and Strong-Scott Dump in its elevator. The T. E. Ibberson Co. will do the work.

Marshall, Minn.—The Worthington Creamery & Produce Co. has bot the brick mill from the Cargill Elvtr. Co. The latter firm retains its elevator, grain tanks and wooden mill building.

Shakopee, Minn.—John G. Vierling has resigned as manager of the King Midas Mill Co. and will become district agent for an insurance company. He will be succeeded by N. F. Crouch.

Brownsdale, Minn.—C. M. Syck is again manager for the Hunting Elvtr. Co. after an absence of a year. E. A. Highum, who has been manager during that time, has been transferred to Chester, Ia.

Renville, Minn.—The plant of the Columbia Elvtr. Co. burned recently. The elevator was built in 1878. It was bot four years ago by W. E. Kelly who had been operating it as an elevator and feed mill.

Dalton, Minn.—On April 9 our stockholders voted to go into bankruptcy and at the same meeting they selected a com'tee of seven men to get stock for a new company, which will bid on the elevator when receiver sells.—Ole L. Nelson, mgr., Dalton Grain & Lumber Co.

Holloway, Minn.—A plan for reorganizing the Holloway Co-op. Farmers Elvtr. Co. into a stock company has been approved by persons interested and work on the same has started. The effort is being made in order to provide for the rebuilding of the elevator which burned in December, 1926.

Moorhead, Minn.—The Farmers Elvtr. Co. has commenced work on its new annex. This is being built in conjunction with the 40,000-bu. elevator which was finished a year ago. It will be used principally for seed cleaning. It is designed with part of the space as work floor with bins overhead. The Hickok Construction Co. has the contract.

Kenyon, Minn.—The Kenyon Farmers Mercantile & Elvtr. Co. is improving its feed plant, the work being done by the Hickok Construction Co. The existing building will be taken down and a much larger one erected. There will be five service bins for grain and five ground feed bins arranged to deliver bulk feed to wagons and trucks in an enclosed driveway. This will make it possible for patrons to deliver grain in bulk thru the dump scale and receive back the identical grain ground into feed.

St. James, Minn.—The Great Western Grain Co. will build 17 coal sheds at its local plant and make various repairs.

## MISSOURI

Lamar, Mo.—The McDaniel Mfg. Co. has installed a corn drier at its elevator.

Weston, Mo.—The Farmers Co-op. Elvtr. Ass'n has installed a new hammer mill.

Bowling Green, Mo.—The Farmers Elvtr. Co. has equipped its plant with lightning protection.

Barnard, Mo.—Everett Swartz has succeeded Dale Holaday as manager of the Farmers Elvtr. Co.

Aldrich, Mo.—The Aldrich Lumber & Grain Co. will paint and repair its elevator this summer.

St. Joseph, Mo.—A stock ticker has been installed in the office of Farnum, Winter & Co., here.

Freeman Park (Clarksdale p. o.), Mo.—The Freeman Park Feed & Lumber Co. has wrecked its elevator.

St. Joseph, Mo.—C. F. Adams is in charge of the recently opened wire office of Jackson Bros., Boesel & Co.

Monroe City, Mo.—J. J. Elliott has been re-elected manager of the Farmers Elvtr. & Exchange Co.—P.

St. Louis, Mo.—The proposed rule to bond members of the Merchants Exchange to an amount of \$10,000 was defeated.

St. Joseph, Mo.—Arthur Lukens of Atchison, Kan., has been elected to membership in the Grain Exchange on transfer of David Lukens, deceased.

St. Joseph, Mo.—Smith A. Penney, for many years in the grain and feed business, was re-elected treas. of the city of St. Joseph at the recent municipal election.—N. K. Thomas, sec'y Grain Exchange.

St. Louis, Mo.—The Marshall Hall Grain Co. has let contract to Jas. Stewart Corporation for rebuilding its river house, known as Burlington Elvtr., which will provide warehousing room for bagged grain received from river packets and also be equipped with a 42-in. shipping conveyor to river house for loading river barges with export grain, and small conveyor belt for carrying the grain stored in river house to elevator. A Howes Clipper, Howes Cleaner and an Emerson Cleaner will also be installed.

## KANSAS CITY LETTER.

Roy Brady, chief weighmaster for the Missouri Grain Inspection Department for the past three years, died Apr. 13.

The Norris Grain Co. has sold one of its memberships in the Board of Trade to the Simonds-Shields-Lonsdale Grain Co.

Ben H. Hargis, formerly with Lamson Bros. & Co., has become connected with the sales staff of the Larabee Flour Mills Co.

Clyde A. Truesdell has applied for membership in the Board of Trade on transfer from the estate of John H. Lynds, deceased. Mr. Truesdell will be a cash grain salesman for B. C. Christopher & Co.

Miss Juanita Laws of the grain department of the Larabee Flour Mills Co. was one of the 39 persons killed in the crash and fire which followed an explosion at a dance hall at West Plains, Mo. She was spending her vacation at West Plains at the time.

Members of the Board of Trade defeated the proposition to amend rules to provide for the use of the income from the \$500 transfer fee to retire membership certificates. The vote was 80 for and 41 against. A two-thirds majority was necessary. The exchange has 216 members.

## MONTANA

Valier, Mont.—The plant of the Montana Central Elvtr. Co. burned recently.

Glendive, Mont.—It is reported that the Eastern Montana Elvtr. Co. will build four new elevators on the Red Water branch of the Northern Pacific.

Power, Mont.—The Power Farmers Elvtr. Co. incorporated; capital stock, \$25,000; Ole Gunderson, C. J. Cutz, Chris Burgmaier, W. E. Daily, Keith Hane, Geo. Tockes and L. C. Keister, directors.

Choteau, Mont.—T. J. Thompson, aged 52, manager of the Rocky Mountain Elvtr. Co., died April 3.

## NEBRASKA

Friend, Neb.—The Acme Mills & Elvtr. is installing a feed mill unit.

McCook, Neb.—The Equity Union Grain Co. has moved to larger offices in the Morlan Bldg.

Phillips, Neb.—Harry E. Toof is now in charge of the Farmers Elvtr. Co., which he recently bot.

Elmwood, Neb.—Ed. Earnest has succeeded S. Lyle as manager of the Farmers Co-op. Union Ass'n.

Doniphan, Neb.—Mr. Anderson has resigned as manager of the Farmers Elvtr. Co.—H. G. Heints.

Falls City, Neb.—The plant of the Falls City Mfg. Co. was slightly damaged by windstorm recently.

Lodge Pole, Neb.—C. A. Fulcher of Holyoke, Colo., has bot the elevator of the Carlson-Peterson Grain Co.

Oreapolis (La Platte p.o.), Neb.—The Oreapolis Grain Co. has been incorporated with a capital stock of \$4,500.

Brandon, Neb.—W. R. Bennison of Imperial has succeeded C. H. Hageman as manager of the elevator of P. J. Fitzgerald.

Walthill, Neb.—J. J. Mullaney Elvtr. Co. is installing a truck dump, the work being done by the Younglove Engineering Co.

Fillee, Neb.—The elevator of the Nye-Jenks Grain Co. burned early the morning of April 18. The loss is estimated at \$12,000.

Mt. Clare, Neb.—The plant of the Farmers Union Elvtr. Co. has been sold to a party from Colorado who will take possession soon.

Elsie, Neb.—C. H. Hageman, formerly manager of the elevator of P. J. Fitzgerald at Brandon, is now manager of the O. M. Kellogg Grain Co.

Mitchell, Neb.—C. E. Scriven has bot the elevator of Wm. Ledingham and is now in charge.—V. M. Eikenberry, mgr., Mitchell Elvtr. Co.

Grant, Neb.—The Kellogg Grain Co. is building a 50,000-bu. elevator just south of its present structure. W. H. Cramer is doing the work.

Doniphan, Neb.—The Redman Elvtr. is installing a hammer feed mill and a 40-h.p. electric motor.—H. G. Heints, mgr., Doniphan Grain Co.

Eustis, Neb.—The Farmers Elvtr. Co. is installing a new truck dump. The Home Grain Co. will install one in the near future.—J. M. Sill, mgr., Home Grain Co.

Omaha, Neb.—The board of directors of the Grain Exchange at a meeting April 11 voted unanimously to resume trading in grain futures not later than June 15.

Kenesaw, Neb.—The elevator of the Real & Easterday Co. burned recently. It contained about 5,000 bus. of grain. The home office of the company is McCook, Neb.

Gurley, Neb.—The Farmers Union Co-op. Ass'n will repair its plant which was damaged by windstorm. The contract has been let to the W. H. Cramer Construction Co.

Ogallala, Neb.—I am now manager of the West Side Elvtr., leased by the Nebraska-Colo-rado Grain Co. from N. G. Eusey who operated it as the Ogallala Grain Co.—John Hamlin.

Venango, Neb.—The Farmers Union Co-op. Grain Co. is repairing its old elevator, putting in a 10-bu. Richardson Scale and a distributor, raising the cupola 8 ft. and putting new steel spouting at head. The W. H. Cramer Construction Co. is doing the work.

Hordville, Neb.—We had one 10-h.p. and one 5-h.p. open type single phase motors and took them out and installed G. E. Totally Enclosed Motors of same h.p. except that the new 10 was installed with a Winter Drive in the cupola which does away with all jack shafts, belts and chains. We reduced our power bill one-third on this drive. The other motor runs about the same as it has the same load and the same size.—C. O. Rodine, mgr., Farmers Grain & Livestock Ass'n.

South Ravenna (Ravenna p. o.), Neb.—I have leased the elevator on the U. F. Railroad, formerly the Farmers Shipping Co. A. P. Hauschild is the owner. I am doing business under the name of the Novak Grain Co.—Alden Novak.

## NEW ENGLAND

### BOSTON LETTER

Frank H. Tyler, grain and hay broker, died April 6, collapsing on his way home from work.

John W. McLachlan, a director of the Grain & Flour Exchange, died recently following an operation.

James A. Radcliffe of Rockland has applied for associate membership in the Grain & Flour Exchange.

Henry A. Lynch has applied for membership in the Grain & Flour Exchange, taking over the certificate of Southworth Lancaster.

## NEW YORK

New York, N. Y.—Bertram Latz and W. J. Brainard have applied for membership in the Produce Exchange.

Ogdensburg, N. Y.—W. C. Flynn, formerly with the Cargill Grain Co. at Milwaukee, is now in charge of the Rutland Elvtr.

Baldwinsville, N. Y.—The concrete mill of the Baldwinsville Flour Mills, Inc., was damaged by fire caused from a spark from a nearby chimney on April 9.

Lockport, N. Y.—A driveway adjoining the plant of the Thompson Mfg. Co. collapsed on April 9 and fell into the bed of the barge canal 50 feet below. Repairs are expected to be completed before the opening of navigation.

### BUFFALO LETTER.

Raymond Finley, for a number of years supt. of the Dakota & Eastern Elvtrs., has been appointed ass't supt. of the Superior Elvtr.

Walter J. Schonhart has been appointed supt. of the Great Eastern & Dakota Elvtrs., which was lately bot by a company of which James E. Davidson of Bay City, Mich., is pres.

The International Mfg. Co. expects to have its 750,000-bu. addition completed by July. The foundation has been dug and concrete work is now being started on the superstructure.

The Transit Elvtr., formerly the Wheeler, recently acquired by the Pierce Elvtr. Corporation, has been renamed in honor of the pres. of the operating interests, Geo. E. Pierce.

At the annual meeting of the stockholders of the Corn Exchange the following directors were re-elected for the ensuing three years: Lloyd Hedrick, H. H. Richardson and M. C. Burns.

The Western Stevedoring Co. has taken over the Connecting Terminal Elvtr. on the Buffalo river. Robert O. Beatty, dock manager of the Pennsylvania R. R., has been named manager of the elevator. Geo. DeBooth will continue as elevator supt.

Louis W. Rammacher, general supt. of the Concrete Central, Electric & Mutual Elvtrs., died April 9 after an illness of several months. He had been connected with the elevator business for about 20 years and was a brother of John J. Rammacher, vice-pres. of the Eastern Mill, Grain & Elvtr. Corp. He was about 50 years old and leaves a widow.

## NORTH DAKOTA

Baldwin, N. D.—The Wheat Growers Warehouse Ass'n has closed its elevator for the summer.

Harlow, N. D.—Farmers in this vicinity have organized a Farmers Co-op. Elvtr. Ass'n. It is planned to either buy or build an elevator.

Goodrich, N. D.—The elevator of the G. Doering Grain Co. was slightly damaged by fire, probably caused by a short circuit, on April 14.

Wellsburg, N. D.—The Equity Elvtr. Co. will install two new legs, using a double distributor. The work will be done by the T. E. Ibberson Co.

Fessenden, N. D.—The Minnesota Elvtr. Co. will equip its elevator with roller bearing equipment. The T. E. Ibberson Co. will do the work.

Max, N. D.—The Minnesota Elvtr. Co. is installing a Fairbanks Scale and a Kewanee Dump, the work being done by the T. E. Ibberson Co.

Sawyer, N. D.—The Minnesota Elvtr. Co. is installing Hincley Head Drives and Fairbanks-Morse Motors. The T. E. Ibberson Co. is doing the work.

Blabon, N. D.—Mail addressed to the Farmers Elvtr. Co. has been returned marked "Out of business." The elevator of this company burned some time ago.

Norway Spur (Oakes p. o.), N. D.—The Norway Spur Equity Exchange is having roller bearing equipment installed in its elevator by the T. E. Ibberson Co.

Abercrombie, N. D.—We are putting a new roof on our elevator and making other minor repairs. We handle flour, feed, coal and seed as sidelines.—H. B. Lee, mgr., Farmers Elvtr. Co.

Mott, N. D.—The Mott Mill & Elvtr. Co. has completed a modern feed mill building. It is equipped with an Allis-Chalmers Vertical Grinder. The work was done by the Hogen Construction Co.

Pingree, N. D.—F. R. Lynch of Jamestown has bot the elevator recently purchased by the Andrews Grain Co. from the Pingree Grain Co. He will operate under the name of Pingree Grain & Fuel Co.

Oakes, N. D.—The Gross Grain Co. is dismantling the 500-bbl. mill formerly operated by the Baldwin Flour Mills Co., and plans to convert the building into a corn drying and seed cleaning house.

Wolcott, N. D.—The Equity Elvtr. & Trading Co. held a special stockholders' meeting April 14 to decide whether or not the business would be continued. There were 43 votes for continuing and 39 for discontinuing.

Braddock, N. D.—The Braddock Equity Exchange is installing two legs, two Hinkley Head Drives, new motor power, a double distributor, and new boot tanks at its elevator, the work being done by the T. E. Ibberson Co.

Regent, N. D.—The Regent Co-op. Exchange is giving its plants a general overhauling. Both elevators will be painted two coats, a Richardson Automatic Scale will be installed, as well as a distributor and other repairs. The Hogen Construction Co. has the contract.

Barton, N. D.—The International Elvtr. Co. has awarded a contract to the T. E. Ibberson Co. to wreck its present elevator and rebuild a modern 25,000-bu. house. Work will be started at once. Fairbanks-Morse Engine and Fairbanks Scales will be used. A Strong-Scott Dump will be installed.

McVie, N. D.—The Equity Elvtr. & Trading Co. has awarded the contract to the Hogen Construction Co. for a 40,000-bu. elevator to replace the one which burned. The house will have 18 bins, be completely motorized and iron clad. Work has been started and the new elevator will be ready the first part of June.

South Heart, N. D.—The Farmers Co-op. Elvtr. Co. has let a contract to the Hogen Construction Co. for installing a Winter Universal Head Drive and GE Totally Enclosed Motor to the Hogen Construction Co. The company is also installing a 2-h.p. motor for its compressor and the elevator will be painted.

New members of the Farmers Grain Dealers Ass'n of North Dakota are Fort Rice Equity Exchange, Fort Rice; Washburn Grain Co., Washburn; Farmers Elvtr. Co., Gardner; Hendricks & Hanson, Goodrich; Wibaux Co-op. Elvtr. Co., Wibaux, Mont.; Farmers Elvtr. & Mercantile Co., Moffit; Riebe & Riebe, Minot; Bert Amdahl Elvtr., Carpio; Clarence Gehrke Elvtr., Merricourt; McGillivray Elvtr., Dickinson; Farmers Co-op. Elvtr. Co., Kulm.—Sec'y P. A. Lee.

Underwood, N. D.—The Underwood Grain & Supply Co. has let a contract to the Hickok Construction Co. for a 40,000-bu. elevator. It will be equipped with two stands of elevator legs, DP Buckets. The heads are driven thru Hincley Head Drives with G. E. Enclosed Fan Cooled Motors. There is a double distributor in the cupola. Hyatt Roller Bearings are used on all shafts. There will be a 10-ton Fairbanks Scale, Strong-Scott Pneumatic Dump and 2,000-bu. Richardson Automatic Scale. The elevator will be covered with galvanized corrugated siding and roofing. An existing frame mill building will be wrecked, but a part of it will be left and remodeled for a feed plant. There is a cribbed annex to be left adjacent to the new elevator and connected to it. This company was recently incorporated with a capital stock of \$25,000.

Dickinson, N. D.—The Farmers Grain Co. has installed two Winter Universal Head Drives equipped with GE Totally Enclosed Motors. The Hogen Construction Co. did the work.

Galesburg, N. D.—The Galesburg Co-op. Elvtr. Co. has awarded a contract to the T. E. Ibberson Co. for a 35,000-bu., 19-bin, two-leg elevator to be equipped with Fairbanks 10-ton Scales along with Kewanee Dump, 20-h.p. engine and Carter No. 3 Cleaner. A flax cleaner will also be installed. Foundations will be of slab type and the building will be iron clad. The present annex will be remodeled and repaired and completely covered with iron. Work will be started at once.

Grand Forks, N. D.—The North Dakota Wheat Growers Ass'n has filed articles of incorporation; capital stock, \$1,000,000; to own, lease and operate terminal elevators in North Dakota and elsewhere in the United States; Geo. E. Duis, pres. The new organization contemplates the erection of a \$1,000,000 terminal elevator in Grand Forks. Consideration is also being given to the building of an elevator at Fargo and the leasing or building of a terminal elevator at Duluth.

## OHIO

Lebanon, O.—The Farmers Co-op. Co. has installed a J-B Feed Mill.

McComb, O.—The Farmers Co-op. Elvtr. Co. has installed a J-B Feed Mill.

Montpelier, O.—W. E. Riley is installing a McMillin Wagon and Truck Dump.

Pleasant Hill, O.—The Farmers Elvtr. Co. has installed a Sidney Corn Sheller.

Cleveland, O.—Jacob Abel, aged 53, a member of the firm of Abel Bros., died recently.

Genoa, O.—Mail addressed to the Albert Allemeier Elvtr. has been returned marked "Unclaimed."

McClure, O.—The McClure Elvtr. Co. is installing a McMillin Wagon and Truck Dump in its plant.

Carey, O.—The Farmers Elvtr. Co. has installed an attrition feed mill, two 20-h.p. motors and a blower.

Leipsic, O.—C. A. Heigel is installing Sidney Power Feeder for hammer mill, together with other equipment.

Rudolph, O.—The Liberty Grain Co. has awarded a contract to the Reliance Construction Co. for a 15,000-bu. elevator.

Sugarcreek, O.—We have bot and will operate the elevator of B. W. Wise & Son.—Amra Hostetler, Hostetler Feed & Supply Co.

Toledo, O.—Albert Cutter, former vice-pres. and general manager of the National Mfg. Co., died recently at his home in California.

Waldo, O.—B. R. Klingel and myself are the owners of the Waldo Elvtr., which was formerly owned by the Waldo Co-op. Elvtr. Co.—Ed. Bender.

Cincinnati, O.—Firemen were called twice Apr. 8 to the plant of the Early & Daniel Co. Both fires were in grain bins. The loss from both fires was slight.

Big Springs, O.—Mail addressed to the Big Springs Elvtr. has been returned marked "Out of business." The elevator of this company burned in October, 1926.

Toledo, O.—David Anderson has been elected an honorary member of the Produce Exchange, being the third man to enjoy that honor since the formation of the exchange.

Stryker, O.—Frank Johnson, aged 44, manager of the Farmers Elvtr. Co., died April 12 following an operation for appendicitis. Mr. Johnson was vice-pres. of the Northwestern Ohio Grain Dealers Ass'n.

Toledo, O.—"Bill" Cummings, sec'y of the Ohio Grain Dealers Ass'n, celebrated his 55th birthday on April 20. Walton Stone, owner of the Churchill Grain & Seed Co., will be 57 years old on April 30.

Arcadia, O.—L. F. Good of Bloomdale bid \$2,000 on the plant of the Arcadia Elvtr. Co. at an auction sale by the trustees in bankruptcy. Good's bid was the only one received. It is not known whether or not it will be accepted.

## OKLAHOMA

Newkirk, Okla.—The plant of the Perry Mill & Elvtr. Co. was damaged by windstorm recently.

Geronimo, Okla.—I am building a 12,000-bu. elevator here.—P. A. Cope.

Nowata, Okla.—The Whitford Grain Co. is building a new feed mill and warehouse.

Oklahoma, Okla.—The plant of the Leger Mills Co. had a slight damage by windstorm recently.

Shawnee, Okla.—The plant of the Shawnee Mfg. Co. was damaged by a windstorm recently.

Hooker, Okla.—The Oklahoma Wheat Growers Ass'n will build a 20,000-bu. elevator in Hooker.

Pond Creek, Okla.—The Pond Creek Elvtr. Co.'s plant was slightly damaged by a windstorm recently.

Yukon, Okla.—The Yukon Mill & Grain Co. is paving the street thru its property and building a filling station.

Picher, Okla.—The feed warehouse of the Stauffer-Cammack Grain Co. burned recently with a loss of \$7,000.

Blackwell, Okla.—The Blackwell Mfg. & Elvtr. Co., owned by the Midland Flour Mfg. Co., has installed new engines.

Gibbon, Okla.—The Gibbon Elvtr. Co. will install new cups, cup belt, engines, boots and special White Star Elevator Leg.

Enid, Okla.—A bearing in the top of the elevator of W. B. Johnston became overheated recently and caused a small blaze which was soon extinguished.

Chickasha, Okla.—The Goldsmith Grain Co., recent successor to the Linton-Goldsmith Grain Co., expects to build concrete storage bins of 100,000 bus. capacity.

Byron, Okla.—We are planning on building more storage as the wheat is all combined, which makes a need for more room at the time of movement.—O. E. Allen, Byron Grain Co.

Norman, Okla.—We bot the grain elevator of the Norman Mfg. & Grain Co. with the ice plant property, but have sold the elevator building and it is now being torn down and removed.—Zero Ice & Cold Storage Co.

Walters, Okla.—The Walters Co-op. Wheat Growers local has been organized and stock has been subscribed in the proposed elevator company. The capital stock has been set at \$7,500. A site has been secured on the Rock Island and it is planned to build an elevator of 12,000 bus.

Dover, Okla.—The Bob White Flour Mills will install an air car loader before the new crop moves. The Kill Dover Farmers Elvtr. Co. will be kept by the Bob White Flour Mills until the lease expires June 1 of this year. The Dover Mfg. Co. has been taken over by Bert Evans who is remodeling the plant into an elevator and feed mill.—N. F. Fleming.

Chickasha, Okla.—The Chickasha Mfg. Co. has let a contract to the Jones-Hettelsater Construction Co. for the erection of 300,000 bus. additional tank concrete storage and for a new corn meal mill. The latter will replace a small corn plant which burned recently and will have a capacity of 500 bus. per day. The new addition will give the company storage of about 500,000 bus. at its local plant.

Enid, Okla.—Concrete is now being poured for the mill of the Pillsbury Flour Mills Co. The mill is eventually to be a 3,000-bbl. one but will at first have a capacity for only 1,500 bbls. In order not to increase the general capacity of flour business thruout the United States the company deemed it wise to destroy a mill of 4,000-bbl. capacity in Minneapolis and will transport the best machinery in it to the Enid mill. The mill will be an 8-story building of reinforced concrete and brick. A concrete tank elevator of 750,000-bbl. storage capacity will be built adjoining the mill. The elevator will have 40 large tanks and 33 small interstice tanks. The elevator will probably be finished by the last of July and the mill will be ready for operation by the middle of October. The Jones-Hettelsater Construction Co. has the contract.

## OREGON

Hillsboro, Ore.—The Buchanan Grain & Feed Co. has filed dissolution papers.

Haines, Ore.—The Haines Grain & Elvtr. Co. expects to rebuild its elevator which burned recently.

Portland, Ore.—The grain com'te of the Merchants Exchange is now having cash grain prices posted daily by a special price com'te representing the exporters, millers, dealers and brokers, instead of bid and asked prices as heretofore.

Baker, Ore.—We expect to either build an addition to warehouse space or erect an elevator storage of small capacity.—Marshall Grain Co.

Mount Angel, Ore.—The Fred Schwab Commission Co. has begun construction of a warehouse 42x120 ft. It will be of frame construction with corrugated iron covering and a fire-proof composition roof. It will be used for grain, potato and hop storage.

## PENNSYLVANIA

Palmyra, Pa.—J. B. Curry's Sons are installing a gear driven Superior Batch Mixer.

Philadelphia, Pa.—At the last meeting of the Birthday Club, on April 10, one of the birthdays observed was that of Jesse Shepherd, grain merchant.

Mt. Joy, Pa.—I. D. Stehman is building a 50,000-bu. elevator of steel and concrete. Automatic unloading and weighing devices will be installed. M. A. Long has the contract.

Pittsburgh, Pa.—The partnership of Hardman & Daker, consisting of C. M. Hardman and I. N. Daker, has been dissolved. The former leaves to engage in another line of business. The grain and hay business will be continued by Mr. Hardman.

## SOUTH DAKOTA

Mission Hill, S. D.—The Farmers Elvtr. Co. has equipped its plant with lightning protection.

Meckling, S. D.—The Farmers Union Co-op. Elvtr. Co. has equipped its plant with lightning protection.

Badger, S. D.—We are installing a new Fairbanks 10-ton Auto Truck Scale.—Farmers Co-op. Grain Co.

Groton, S. D.—The Atlas Elvtr. Co. will install a truck dump. The T. E. Ibberson Co. will do the work.

Lily, S. D.—The Atlas Elvtr. Co. will install a Strong-Scott Dump. The T. E. Ibberson Co. will do the work.

Wessington, S. D.—The Atlas Elvtr. Co. will install a truck dump, the work to be done by the T. E. Ibberson Co.

Gary, S. D.—Emil Hogle is installing a Strong-Scott Head Drive in his elevator and giving his elevators a general overhauling.

Delmont, S. D.—We are considering putting in a new dump and motors and raising the cupola about 15 ft.—J. M. Doyle & Son.

Butler, S. D.—A new Strong-Scott Air Dump and new scales are being installed for the Farmers Elvtr. Co. by the T. E. Ibberson Co.

Rockham, S. D.—The Atlas Elvtr. Co. is installing G. E. Motors and Hinckley Head Drives, the T. E. Ibberson Co. doing the work.

Gorman, S. D.—The new elevator being built by the National Elvtr. Co. will be completed May 1. The T. E. Ibberson Co. is doing the work.

Rosholt, S. D.—The Farmers Elvtr. Co. will repaint its buildings and put a new roof on its elevator. The work will be done by the T. E. Ibberson Co.

Vayland, S. D.—The Atlas Elvtr. Co. is installing G. E. Motors and Hinckley Head Drives in its elevator. The T. E. Ibberson Co. has the contract.

Craven (Ipswich p. o.), S. D.—The Farmers Equity Exchange is installing a double 14-duct distributor. The work is being done by the L. D. Wait Co.

Ordway, S. D.—The Atlas Elvtr. Co. will install a new 10-h.p. Type Z Fairbanks-Morse Engine in its elevator. The T. E. Ibberson Co. will do the work.

Columbia, S. D.—New GE Motors are being installed with Hinckley Head Drives at the Atlas Elvtr. Co.'s plant. The motors will replace the present engine power. The T. E. Ibberson Co. has the contract.

Holabird, S. D.—The Atlas Elvtr. Co. will make extensive improvements on its elevator, installing a new leg and a 10-h.p. Fairbanks-Morse Engine. The T. E. Ibberson Co. has the contract.

Armour, S. D.—James Carlon is installing 15-ton scales, dump and electric motor at his elevator at Armour, also at Lake Andes and Wagner. The houses at Armour and Delmont are being painted.

Midland, S. D.—The Midland Co-op. Marketing Ass'n is installing a Kewanee Truck Dump and resetting its present scale. The L. D. Wait Co. has the contract.

Hosmer, S. D.—John G. Kranzler is installing motors in his elevator and is having the plant equipped with lightning protection. The L. D. Wait Co. is doing the work.

Manchester, S. D.—The Atlas Elvtr. Co. will replace its engine power with Fairbanks-Morse Motors and Hinckley Head Drives. The T. E. Ibberson Co. will do the work.

Northville, S. D.—The Northville Grain Co. is installing a 10-ton Fairbanks Scale, Strong-Scott Air Dump and latest improved Strong-Scott Manlift. The work is being done by the L. D. Wait Co.

Agar, S. D.—Geo. P. Sexauer will build a 25,000-bu. iron clad elevator, having one leg and a Fairbanks-Morse 10-h.p. gas engine for power. A Fairbanks-Morse 10-ton scale will be installed in the driveway, fitted with a Strong-Scott Dump. There will also be a double 100-ft. corn crib built at the same time. The T. E. Ibberson Co. has the contract.

Barnard, S. D.—The Northwestern Public Service Co. is now extending its hi-line into Barnard from the south. No doubt our elevators will be motorized before another crop is handled. Arrangements are also being made to install an air lift dump. With these improvements our elevator will be in first class condition.—Barnard Equity Exchange.

Broadland, S. D.—The Broadland Equity Exchange has erected a separate building for its feed mill which is a 24-in. Munson with two 20-h.p. motors, two legs with separate motors driving them and the round reel scalper. All of the above machinery and transmission equipment was furnished by the Strong-Scott Mfg. Co. and the work was done by the L. D. Wait Co.

Irene, S. D.—The explosion which damaged our elevator occurred about two hours after the house had been closed for the night. The previous day we loaded out two cars of grain and one car on the day of the explosion. The elevator was in perfect working order at 6:30 that evening when the last load was taken in and elevated. The entire building was moved off the foundation about six feet by the force of the explosion. There was a good foundation consisting of six concrete walls well down below the frost line and these walls are about three feet wide at the bottom, tapering to 18 inches at the top and extending the entire width of the elevator. The elevator has since been repaired and put back on the foundations.—H. S. Riley, Riley-Arneson Co.

James, S. D.—The Ferney Farmers Elvtr. Co. has let a contract to the L. D. Wait Co. for a new elevator. It will be 26x29 ft. and cribbed 20 ft. with 2x6, and to a total height of 50 ft., the balance of distance being cribbed with 2x4. The driveway is 14x40 ft., and engine room and office are each 14x14 ft. The cupola is 13x26 ft. and 18 ft. high. The foundation is slab type and the entire elevator will have a concrete floor under it. The elevator will be iron clad and the roofs are to be of mineralized roofing. Power is to be a Y Type Fairbanks-Morse 20-h.p. Engine with air starter. Dump scale and dump equipment will be used from the house now on the site, one front and three back pits. A 100-bu. Fairbanks Hopper Scale will be used for weighing out. A three-unit cleaner will be included in the new machinery. A double leg will be installed using 11x6 cups on one side and 10x5½ cups on the other.

## SOUTHEAST

Stanley, Va.—M. E. Roudabush, whose mill burned several weeks ago, plans to rebuild the plant.

Atlanta, Ga.—W. S. Rogers has bot the interest of R. C. Cassels in the brokerage business of Cassels-Rogers Co., and will conduct the business as W. S. Rogers & Co.

## TENNESSEE

Nashville, Tenn.—W. B. Johnson, formerly of Longview, Tex., has opened a grain and flour brokerage business in the Exchange Bldg.

Cleveland, Tenn.—Three years ago we built a 300-bbl. unit in connection with our old mill. During this year we will replace our old mill with a new brick building and some new machinery.—H. M. Knox, pres., Cleveland Mfg. Co.

## Supply Trade

Utica, N. Y.—Arba L. Williams, vice-pres. of the Munson Mill Mch. Co., died April 6.

Delavan, Ill.—Louis C. Sowa of the Superior Scale Co., died recently in St. Francis Hospital, Peoria.

Indianapolis, Ind.—The many friends of H. Louis Silver, in Indiana and Illinois, will be pleased to learn that he has been appointed factory representative for the Hocking Valley Mfg. Co. Associated with Mr. Silver will be H. F. Shatto, who is also well and favorably known to the trade in these states and has had wide experience in the hammer mill field.

Milwaukee, Wis.—Allis-Chalmers Mfg. Co. has ready for distribution its bulletin 1118-E giving complete description of its Types AR and ARY polyphase induction motors, which are squirrel cage and slip ring general purpose motors. This bulletin covers both the slip ring and roller bearing types and in horizontal and vertical construction. A copy of this bulletin will be sent to Journal readers who write the company requesting it.

Recent sales of the Munson Superior Batch Mixer include R. A. Byrnes, Mullica Hill, N. J.; Hamblin Co., Oriskany Falls, N. Y.; So. Jersey Farmers Exchange, Woodstown, N. J.; Hartzels Sons Co., Chalfont, Pa.; Rippe Grain & Mfg. Co., Fairmont, Minn.; Zook & Bro., Mifflin, Pa.; C. F. Morse, Roxbury, N. Y.; Mosher & Parker, Philadelphia, N. Y.; Tuckahoe Lumber Co., Tuckahoe, N. J.; Monmouth County Farmers' Exchange, Freehold, N. J.; Federal Mill & Elevator Co., Lockport, N. Y.; Packer Products Co., Chicago, Ill.; Ingleside Mfg. Co., Ingleside, Md.; Willow Brook Dairy Co., Inc., Mt. Vernon, N. Y.; Van Noord & Son, Hudsonville, Mich.; Sturgis & Cordrey, Millsboro, Del.; Wilson's Flour Mills, Clarks Mills, Pa.; W. E. Webber, Woodfords, Me.; Gray Mfg. Co., Cattaraugus, N. Y.; A. F. Leidy, Delphi, Pa.; Old Home Veterinary Remedies Co., Canastota, N. Y.; R. C. Bowman, Canastota, N. Y.; Benton Roller Mills, Benton, Pa.; S. P. Joslin, Waitsfield, Vt.; Sterling Seed & Grain Co., Watertown, N. Y.; Dayton Milling Co., Towanda, Pa.; Ellensburg Traders, Inc., Ellensburg Depot, N. Y.; Thos. P. Gaines, Sherburne, N. Y.; Farmers' Co-Op. Elevator Co., Coopersville, Mich.; Slyder Poultry Farm & Hatchery, Chambersburg, Pa.; Swope & Co., Duncansville, Pa.; A. G. Seaman, Delancey, N. Y.; Richmondville Feed & Coal Co., Richmondville, N. Y.; Aurora By-Product Co., Aurora, Ill.; N. A. Baxter, Ischua, N. Y.

Spokane, Wash.—F. C. Henneberg, local grain dealer, has announced that he will be a candidate for governor against Governor Hartley.

Walla Walla, Wash.—Ernest T. Freepons, former owner of the Garden City Feed Mill, has opened an office under the name of Ernest T. Freepons, Inc., and will buy, sell and ship grain and hay.

Harrington, Wash.—E. L. Perkins has bot the interest of his partner, A. E. Kessler, in the Kessler-Perkins Grain Co. The past year the company erected one of the best warehouses in the Inland Empire.

Spokane, Wash.—We expect to start the construction of 24 additional tanks at once. The contract has been awarded to the Macdonald Engineering Co. These tanks will cost in the neighborhood of \$125,000 when completed. The present storage capacity of the Spokane mill is inadequate to take care of the wheat at harvest time. It is our plan to keep the mill one of the most modern and efficient of its kind in the United States. The additional tanks will have a capacity for storing 450,000 bus. of wheat. This added to our present storage will make a total of 800,000 bus. We expect to have the tanks completed by July 1 and ready for the new crop when it is moved to market.—W. R. Austin, plant manager, Sperry Flour Co.

## WISCONSIN

Superior, Wis.—Work on the new drier being built at Elvtr. L of the Cargill Grain Co. at East End, was completed April 19.

Beaver Dam, Wis.—Albert L. Williams, aged 53, prop. of the Williams Elvtr. for the past 14 years, died April 4 from a stroke.

Green Bay, Wis.—The Northwestern Elvtr., operated by the Cargill Grain Co., is being overhauled and equipped with dust packing shipping machinery by the Jas. Stewart Corporation.

Milwaukee, Wis.—Walter G. Zinn and Geo. C. Dreher have been admitted to membership in the Chamber of Commerce. The memberships of Albert Zinn, deceased, and Edgar J. Hughes, deceased, have been transferred.

Milwaukee, Wis.—The Chamber of Commerce has designated the Rialto and Kinnickinnic elevators, operated by the Donahue-Stratton Co., as regular, to July 31, 1928. The following have been declared registered storage houses up to July 31, 1928: Donahue-Stratton Co., Rialto and Kinnickinnic, up to capacity on both, and for 300,000 bus. at the Atlas Elvtrs.; Froedert Grain & Malting Co., 400,000 bus. at the Calumet Elvtr.

## WYOMING

Big Horn, Wyo.—Mail addressed to the Big Horn Mfg. Co. has been returned marked "Out of business."

Wheatland, Wyo.—The Cheyenne Elvtr. Co. has bot the Farmers Elvtr., owned by the Denio-Barr Mfg. Co.

Greybull, Wyo.—The local elevator and feed store are now operated by the Greybull Elvtr. Co., newly incorporated for \$25,000 by Howard Flitner, Earl Reilly and Paul Hughes, three cousins. Mr. Hughes is pres., Mr. Flitner, vice-pres., and Mr. Riley, sec'y-treas.

## TEXAS

Austin, Tex.—The Barton Grain Co. is erecting a fireproof warehouse.—P.

San Angelo, Tex.—Hall Bros. Grain Co. has succeeded the West Texas Elvtr. & Grain Co.

Center Point, Tex.—We recently put in a grain warehouse and grain elevator with a 30,000-bu. steel tank.—J. R. Wallace.

Seymour, Tex.—The Stallings Grain & Coal Co. is overhauling and remodeling its plant. New scales and cleaners will be installed.

Galveston, Tex.—Wm. V. Westerlage, sec'y of the maritime com'te of the Cotton Exchange and Board of Trade for many years, died recently.

Dougherty (Van Horn p.o.), Tex.—Frank M. Dougherty and the Edwards Grain Co. have each bot complete elevator equipment from the White Star Co.

Petersburg, Tex.—The Heard & Chubb Grain Co. has awarded a contract to the Star Engineering Co. for a 26x27-ft. grain mill of frame with a sheet iron roof.—P.

Littlefield, Tex.—I have bot the elevator of P. W. Walker which has a capacity of 15,000 bus. Will handle milo, kafir, wheat, corn and sudan seed in carlots.—C. W. Boothe.

Stratford, Tex.—The elevator which we recently bot of the Chapman Mfg. Co. will be operated as Riffe Bros. Elvtr. Co. with Earl Riffe as manager.—Texahoma Elvtr. Co.

Lubbock, Tex.—Raymond Talkington, ass't supt. of the Perry Burrus Elvtrs. of Dallas for the past two years, has been placed in charge of the new 500,000-bu. elevator of this concern at Lubbock.

Fort Worth, Tex.—I have organized a grain commission company here under the name of the Stowers Grain Commission Co.—W. B. Stowers. (Mr. Stowers is head of the W. B. Stowers Grain Co. at Oklahoma City, Okla.)

McGregor, Tex.—We have just completed an addition to our bulk storage of 30,000 bus., all fully equipped for efficiency and quick handling. The Bloodworth Grain Co. has recently installed a hammer mill.—E. W. Crouch, mgr., McGregor Mfg. & Grain Co.

Fort Worth, Tex.—Officers and directors of the Grain & Cotton Exchange were re-elected at the recent 25th annual meeting. E. B. Wooten was reappointed sec'y for the 20th consecutive time. Jule G. Smith is pres.; J. W. Hamilton, vice-pres.; Chas. Little, treas.; Jule G. Smith, G. C. Henderson, E. G. Rall, J. A. Simons, J. W. Hamilton and Chas. Little, directors.—P.

Galveston, Tex.—The Galveston Wharf Co.'s elevators A and B have been overhauled and are in first class condition. Elvtr. B's loading capacity has been increased, which makes the loading aboard vessel faster than before. The Sunset Elvtr. has also been overhauled and is in first class condition. All elevators here are in good condition for the new season.—H. A. Wickstrom, chief grain inspector.

## UTAH

Ogden, Utah.—Construction is under way on our new tanks. Our storage will be increased approximately 500,000 bus. by these tanks. Our flour warehouse will be a two-story concrete and brick building, 190x90 ft.—H. P. Iverson, plant manager, Sperry Flour Co.

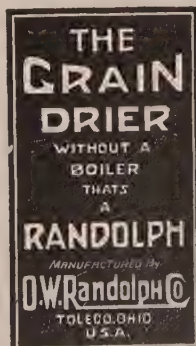
## WASHINGTON

Kittitas, Wash.—The Farmers Elvtr. Co. is contemplating building a 40,000-bu. elevator.

Mohler, Wash.—The Odessa Union Warehouse Co. of Odessa has bot the warehouse of the Mohler Farmers Warehouse Co.

Longview, Wash.—Organization of the Longview Grain & Elvtr. Co. will be perfected soon by the filing of articles of incorporation.

Deer Park, Wash.—M. D. Jones of Springdale has bot the interests of R. F. Millard in the Deer Park Grain Co. Mr. Jones is now in charge of the business.



Northland Elevator, Fort William, Ontario.  
7,500,000 bushels capacity.

This plant is equipped with a Randolph Direct Heat Grain Drier

## Grain Scale Testing at the Port of Buffalo.

FROM ADDRESS BY E. D. GORDON, OF BUFFALO, N. Y., BEFORE NATIONAL SCALE MEN'S ASS'N.

The first grain elevator was erected in 1842 on Buffalo River and Evans slip, the invention of Joseph Dart of Buffalo. It had a storage capacity of 50,000 bus. and 2,000 bus. an hour could be elevated. Today, Buffalo has the United States' greatest grouping of giant elevators, thru which flow, every year, nearly 300 million bushels of grain.

Buffalo has 18 lake elevators with a total capacity of over 34,000,000 bus.; 16 smaller elevators individually operated, with a total capacity of 4,000,000 bus., giving Buffalo a total of 40,000,000 bus. storage.

One of the most interesting of grain elevator operations in the port of Buffalo is the unloading of lake vessels, by means of the "in-store scales" located in marine towers. The weighmen who perform this operation are highly skillful in the handling of these scales. A majority of the marine legs have an unloading capacity of 25,000 bus. per hour, whereas the capacity of the scales is only 400 bus. Therefore it is necessary for the weighmen to handle about 60 loads per hour.

The fastest unloading of this kind is performed at the new house of the Superior Elevator. This leg has a maximum capacity of 35,000 bus. per hour, and the scale capacity is 500 bushels. When running at full speed, the weighman must accomplish 70 complete weighings per hour, which is about 52 seconds per weighing. This speed of operation is truly remarkable.

One day last week I was watching the unloading operation at the Concrete-Central Elevator. One leg was dipping strong and the weighman was going at the rate of one a minute on a 400-bu. scale. Two features of the operation impressed me very much; first, the accuracy of the weighings, and, second, the apparent ease with which the operation was performed.

The secret of success for this important operation is the systematic method. First, the weighman opens the garner gate wide and the grain is permitted to flow into the scale hopper at full speed until within about 100 lbs.; then the gate is quickly shut. The grain is then dribbled until the beam balances in the trig loop. The S. R. value for these scales is only 2 lbs. and therefore the average error of the weighings is less than one pound.

**Insured Against Shortage:** At least one and sometimes two insurance tallymen are present when grain is being weighed into the elevators. Nearly all grain shipped into Buffalo is insured against shortage. These insurance men form a constant check upon the weighman's operations, because an incorrect weighing is a penalty against one or the other.

A recording beam and lifting device is used with the outstore scales at the Canadian Pool elevator. The in-store scales in the marine towers of this elevator also are equipped with similar lifting devices. The purpose of the lifting device is to permit a quick observation of the balance of the scale.

**Tested 139 Scales:** During 1927 there were 139 scales in the grain elevators officially tested. The scales are inspected and tested at least once a year, usually in the early spring, and at any time thereafter upon request from owners of the elevators or the insurance companies. The official tests of grain scales at Buffalo are always witnessed by representatives of several organizations, namely: Buffalo Corn Exchange, trunk lines freight inspection bureau, insurance companies, superintendent of elevators, under test, city sealer of weights and measures, scale manufacturer.

The scales are always adjusted very carefully and as closely as possible so that when a test is completed, the scale is practically without error. This is necessary in order to meet the exacting requirements of the elevator owners

and insurance companies. The insurance companies guarantee the delivery of grain cargoes within 15 lbs. per 1000 bus. or 1/40 of one per cent; and therefore it is obvious that the scales must be maintained within very close adjustment.

..The adjustment of the scale in order to eliminate as much error as possible is one of the most important steps in the process of grain scale testing. To facilitate this operation of scale adjustment, about 3 years ago a method was developed whereby the scale tester is able to compute the amount of adjustment. This computation method is much quicker and more accurate than the old method of estimation and trial.

A summary of the results of tests for the last three years is interesting in several respects.

Year.	Scales tested.	Passed.	Failed.
1925 .....	119	90%	10%
1926 .....	122	90%	10%
1927 .....	139	92%	8%

Altho the number of scales is increasing, yet the average conditions are improving. This is indicative of two things—better scales and better maintenance. In the above figures, the tolerance applied is the 1/20 of one per cent value, as recommended in the Interstate Commerce Commission, Docket 9009. The percentage tolerance is 0.05.

Year.	Average error.	Maximum error.
1925 .....	0.016%	0.130%
1926 .....	0.017%	0.210%
1927 .....	0.012%	0.200%

These tabulations speak for themselves and clearly indicate a healthy general condition of the grain scales at the port of Buffalo.

When tabulating the results of the tests for the last three years, I discovered that about fifty per cent of the scales tested to within an error of one or two pounds on test loads of 8000 to 12,000 pounds—which is about 0.01%, one-fifth of the allowable tolerance.

**Factors contributing to the successful operation of these scales are:**

Nearly all of the elevators are of modern design and construction, steel or concrete, or both.

Each elevator has its own test weights, which are used only for the testing of its own scales, and when not in use are placed in containers and thus maintained in excellent condition.

The test weights are used only by the official testing committee mentioned in paragraph 11, and are standardized and resealed every five years.

A large number of scales have been installed in the last four or five years, and all of these scales are of the latest design conforming to the specifications and requirements of the I. C. C. Docket 9009 and Bureau of Standards Grain Scale Circular No. 199.

Special attention has been paid to the foundation construction and frame design of the older scales. In many cases these parts have been strengthened to great advantage, and better results obtained.

The scale counterpoise weights are tested each year and if any are found out of seal, they are sent to the factory for resealing.

All grain scales are handled in a careful manner, by experienced weighmen.

The elevator owners are very much interested in their weighing equipment and are always ready to cooperate with the inspection officials in the testing and maintenance of scales.

Dates of the issuance of reports by the U. S., Canadian and Argentina Crop Reporting Boards, along with the hour of the day these reports are issued, are now available in handy form from Lamson Bros & Co. The card covers reports coming out from April 10, 1928 until April 16, 1929. Dates of issuance of government reports on cotton are also listed conveniently, as well as "Ginning Reports."

## Supreme Court Decisions

**Interest on Claim against Bank.**—In an action against the receiver of a failed bank to establish a trust fund and to have it paid as a preferred claim, interest on the claim, if allowed at all, should be paid from the general assets of the bank, as are claims of general creditors.—*Vincent Grain Co. v. Docking*. Supreme Court of Kansas. 265 Pac. 38.

**Error of Telegraph Co.**—If negligence of telegraph company in changing word "your" to "four" in telegram to plaintiff's agent directing shipment of automobile bodies as stipulated "in our order dated May nineteen your number ten five one," caused injury to seller, latter could recover unless contributorily negligent.—*W. U. Tel. Co. v. Ft. Smith Body Co.* Supreme Court of Arkansas. 3 S. W. (2d) 345.

**Agency Contract Constitutes Doing Business in State.**—Where foreign corporation shipped flour into state for sale by brokers and stored flour with produce company, retaining title to flour, and thereafter, on failure of brokers to sell flour, arranged with produce company to sell it, transaction being nothing more than agency contract, held, that corporation was "doing business in state," within Crawford & Moses' Dig. §§ 1825-1832, regulating foreign corporations doing business within state, and, not having complied therewith, was precluded from maintaining action in state.—*Eisenmayer Milling Co. v. Geo. E. Shelton Produce Co.* Supreme Court of Arkansas. 3 S. W. (2d) 688.

## May Abolish Duties on Canadian Seed Wheat.

Abolition of customs duties on seed wheat entering the United States is one of the possible results of the tangled situation produced by a deadlock over farm relief legislation at Washington, D. C. Bills embodying the principle of free seed wheat have been introduced during the last few years, but have been pigeon-holed in committee.

Experts of the Department of Agriculture do not admit that there is any superiority in Canadian seed over that grown in the United States in the average year, but they admit that rust in certain years affects domestic wheat more heavily than Canadian.

One congressman expressed the opinion that the United States farmers would gain in the long run if they sacrificed some of their seed market at home and gained a reputation in the world market which Canadian grain enjoys.

## Haugen Bill Costly Error.

Sec'y Plumb of the Milwaukee Chamber of Commerce sent the following telegram to all Wisconsin representatives in Congress last week:

The Milwaukee Chamber of Commerce believes the passage of Haugen bill would be a costly error. It would disrupt established channels of commerce and prove disastrous to the producer in many ways.

## Grain Claims Bureau, Inc.

19 So. La Salle St.

Chicago, Ill.

A few dollars saved on legitimate freight claims is worth while; examination of old records costs nothing; charges are not to exceed 33% of amount saved; frequently less. 305 country elevator managers and owners have benefited thru this service, and it's worth a trial.

W. S. BRAUDT  
Pres. and Treas.

HARRY J. BERMAN  
General Counsel

# Advantages of the Modern Country Elevator

By H. M. Hickok of the Hickok Construction Co.

Elevator operation at the country station has changed greatly during the past twenty years. In the early days, the bulk of the grain was handled by elevator companies. The elevator and equipment were crude compared with present day equipment.

The facilities provided were for the single purpose of transferring the grain from wagons to cars. Some bin capacity was essential as cars were not always available, and several kinds of grain had to be stored, until shipment could be made.

The early line elevators were of 10,000 to 20,000 bus. capacity, with a single leg and small buckets, a 5 HP. engine and light scale. The work floor space in the elevator was low and narrow, as no cleaning was done and weighing to cars when done was thru a small hopper scale.

These early elevators served the purpose for a time, but increased production and sharp competition has brought about a change in the facilities required for profitable operation.

This change has been gradual, keeping pace with the changing conditions at country stations, the increase in the variety of grains, the increase in farm diversification and improvements in the machinery for handling grain.

In the development of elevator facilities, increased storage capacity was the first demand, in order that grain might be stored and held for higher prices. Some elevators of 50,000 bus. capacity and a few of 75,000 bus. and over were built.

Along with the increased storage capacity, more rapid handling facilities were provided, and in many cases cleaning equipment installed. During the early years, there was little incentive to figure closely on the costs of operation of an elevator.

The cost of construction was much lower, the equipment simple, both in variety and operation. While larger volumes of grain were handled, the varieties were fewer and the grading less exacting. Grain was cleaner, freight rates were lower and margins wider.

As time went on, conditions changed, until in recent years the operation of a country elevator at a profit requires as close attention to every detail as that required to operate any mercantile business.

In addition to an intimate knowledge of grain values and marketing procedure, a successful manager must be something of a mechanical engineer. He must select and operate the many different types of power, transmission and cleaning equipment, feed grinders and various other items of equipment, which are necessary for the economical operation of the modern elevator and which provide the services demanded by the elevator patrons.

**Reduced Cost of Operation:** While the cost of an elevator is now double the pre-war costs, the fact that well managed elevators are showing profits year by year, in spite of decreased margins, indicates not only savings in cost of operation, but that improved elevator design has made it possible to handle grain to better advantage. There is probably a larger volume of business handled and very substantial profits in cleaning, conditioning and mixing grain.

If a larger volume of grain has been handled, we must infer that prices paid have not exceeded the true value, that the services and conveniences furnished patrons have been an important factor in attracting customers. A new modern elevator built in a community attracts new business, and if the treatment and services rendered are satisfactory, a large amount of this new business will be held.

A wide, clean, well lighted driveway with the weighing done, either in the open or behind large windows, inspires confidence and the effect is increased if the sampling room and offices are neat and business like.

A grain man with many years experience in the operation of elevators and who is also an owner and partner in several successful elevators, lays stress on the fact that improved methods in conducting an elevator business is a large factor in its successful operation. He insists upon good office equipment, adequate account books and records. The statements rendered customers should show clearly all the items of a transaction, weights, grades, moisture and protein tests.

The atmosphere and conduct of an elevator office should be such that customers will feel the same confidence as they feel in doing business with an efficiently managed bank or store.

**Truck Dumps:** Probably 80 per cent or more of all elevators are now equipped with the pneumatic truck dump. This dump was developed as a result of the use of the auto truck in hauling grain, but wagons and sleighs also are handled with a great saving in time and labor.

As loads may be handled much more quickly with the pneumatic dump, the elevator with large pits and fast legs and ample bin spaces, will hold the edge over a competitor with slow receiving facilities.

**Very large storage capacity** in an elevator is no longer an asset, and unless full storage charges are collected, it may prove a burden. Railroad service has improved to the point where cars are available when needed, and farmers are increasing storage bins on their farms.

The size of an elevator should be such that a fairly large number of overhead bins can be arranged of single car load capacity. Ordinarily, a capacity of around 40,000 bus. will suffice and may be divided into 16 or more bins.

With the great variety and grades of grain now being handled sixteen bins is a minimum, for economical separation of grades. Losses are continually sustained by elevators of small capacity where it is not possible to accumulate car lots without mixing grades and often it is necessary to use a bin of several thousand bushels capacity, in order to keep separate a particular grade, until a carload is obtained.

**Grain cleaning** is of increasing importance in the profitable operation of an elevator. This makes for the betterment of grades, the saving in freights paid on dockage, cleaning for seed grain and a growing demand for feed screenings.

There has been a great improvement in cleaning machinery and this has given an impetus to their use. Formerly cleaners were of the sieve and air type and these cleaners did good work in the hands of an experienced operator; but they require close attention to regulate, especially to remove sufficient dockage so the grade would be raised. So only occasionally could an elevator show sufficient profit through cleaning to make the operation of major importance.

Now we have cleaners available which clean the grain by mechanical methods to a degree never possible with the sieve cleaner in the hands of an inexperienced operator. These improved machines are smaller in capacity, but they need very little regulation or attention, and they can be run continuously at small labor and power cost. While the machines themselves cost several times as much as the old sieve cleaners, the profits accruing from

their operation make the additional cost a good investment.

We have in mind one elevator which reports a profit of \$4000 in 3 years with no replacements or upkeep expense, except for greasing at long intervals, and this is not an exceptional case. With these machines very good work can be done in cleaning for seed, particularly wheat and barley. A survey shows that 85% of Farmers elevators in spring wheat territory have cleaning machinery and that half of them clean 90% to 100% of the wheat handled.

**Cleaning Seed Grain:** There is an opportunity for profit at many elevators in conditioning grain for seed. This can be made profitable to both the elevator and the farmers. By furnishing clean seed, cleaner grain is produced, heavier yields result, the cost of production is reduced and better prices obtained. The elevator may contract with a farmer for the production of seed, the farmer gets a nice premium and the elevator can sell this pure seed at a profit.

The elevator should be equipped with several different types of cleaners, to clean for seed purposes. With the proper equipment a profit can be made, not only on seed sold, but also by making a charge for cleaning seed grain for customers.

A market can be developed outside the immediate territory tributary to the elevator. The use of pure seed is sure to increase the revenue of the elevator and its customers.

The production of seed grain requires not only the right cleaning equipment, but the elevator must have working space for the cleaners, the necessary bin room and elevator legs. With properly designed pits and bin layout, 2 to 3 stands of elevator legs will handle the usual business very nicely.

**Feed grinding** as a side line to elevator operation is rapidly increasing. Some companies claim that there is no profit in feed grinding, but that it is necessary to provide this service to patrons. However, the experience of many elevators shows that feed grinding can be made profitable. It provides an outlet for the low grade grain and screenings.

The charge for grinding grain for customers is often too low and sometimes not enough differentiation is made between the charges for fine grinding and coarse grinding. One company reports a profit of \$4000 for one year's operation with a 30 inch attrition mill, power cost of 7 cts. per cwt. The charge for ordinary cow feed grinding was 10 cts. per cwt. and 15 cts. per cwt. for fine hog feed. This record is exceptional but indicates what can be earned with a feed mill where the volume is large and a reasonable charge is made for the grinding. But it must be noted that the cost for power was lower than can be obtained at many points.

In many sections the manufacture of supplemental mixed feeds may be made a profitable undertaking, not only for local sale, but the demand may be built up over a considerable territory. It is quite possible to compete with the commercial feed manufacturers on many classes of feeds.

There is no mystery about the formulas for these feeds. They may be obtained from the State Agricultural Colleges, from mill machinery firms and from the manufacturers of concentrates. The concentrates may be bought in less than car lots or in mixed cars. The commercial mixed feeds must carry a price to cover the freight two ways on the feed base, which is saved by the local mill.

The local mill can use screenings or low grade grain purchased from other local elevators or from elevators at nearby points. An elevator can start this business with a minimum amount of equipment and expand as the business grows.

**Power Economies:** Savings in operation may also be made by the use of better equipment in power transmission and machines. The extension of power lines has been quite rapid

[Continued on Page 512]

## Grain Carriers

The Pecos Valley Ry. has petitioned the Texas Railroad Commission for cancellation of the differentials on grain and products. A hearing is set for May 8.

Hon. T. C. Norris, former premier of Manitoba, a large-scale grain raiser of Griswold, Man., has been appointed to a vacancy on the Canadian Railway Commission.

Edgewood, Ill.—The Edgewood "cutoff" built by the Illinois Central will be put into use shortly after May 1. This 162-mile line runs from Edgewood, Ill., to Fulton, Ky. All track except  $4\frac{1}{2}$  miles had been laid on April 1. This will be an exclusive freight line.

Crushed oyster shell, gypsum and limestone intrastate rates, the same as the basis applying on grain and grain products, is asked of the Minnesota Railroad and Warehouse Commission, in the application of Northrup, King & Co., feed and seed dealers, Minneapolis.

Floyd County, Tex., is the site of two recently completed lines of railroad. The new connections on these lines include: Dougherty, the new town of Quanah (on the Acme & Pacific), Muncy, Sterley, Petersburg, Stringer (on the Ft. W. & D. branch), and another north of Aiken in the northwest corner of Floyd county, also on the Ft. W. & D. branch.

No jurisdiction over the construction of a wholly intrastate line is possessed by the Interstate Commerce Commission was the decision by the Supreme Court of the United States, Apr. 3, in the case of the North Side Belt Ry Co., as long as its operation is confined to intrastate commerce. It is not necessary for such a line to obtain from the commission a certificate of convenience and necessity.

The small shopkeeper and the large one, the manufacturer and the distributor, the farmer and the planter, the commuter and the long-distance traveler, are all clamoring for lower rates and for better service, not realizing that the latter is indirectly a contradiction of the former except where increased volume of traffic or economy in operation due to invention and improved methods permits reduction of rates.—Frederick Strauss in the Century Magazine.

Merger of the Chicago, Springfield & St. Louis railway and the Jacksonville & Havana railway was voted at a director's meeting of the two lines in Springfield. F. J. Lisman of New York, who holds a controlling interest in both properties, will underwrite a \$1,000,000 rehabilitation program for the lines, which operate between Jacksonville and Havana, from Springfield to Lockhaven, and thence to Alton over the tracks of the Alton & Eastern. The lines are connected for freight service by use of the Burlington tracks between Jacksonville and Waverly.

Santa Fe vs. the United States of America and the Interstate Commerce Commission, in equity No. 7687, in the federal court for the Northern District of Illinois, eastern division (Chicago), a hearing was held on April 6, on an application for an injunction forbidding the enforcement of the Commission's order in I. & S. No. 2813, grain and grain products from Colorado, Kansas and Nebraska to Gulf Ports for export, decided July 6, 1927, 129 I. C. C. 261. In that case the Commission found not justified, the proposal of the Santa Fe and other roads serving both the points of origin and carrying to the Gulf Ports to establish inbound grain proportionals to Wichita and Kansas City higher than their locals to those points, to be applied on grain that did not move out over their rails from the transit or storage points.

The Chicago & Alton R. R. is being sued by James A. Havey of Elkhart, Ill., for \$1,000 damages, alleging shortage of grain in shipment between delivery and destination points.

## Railroad Records.

Average daily box car surplus for the weeks ending March 31 was 125,627, for week ending March 23, was 130,600, and for week ending March 15 was 130,748.

Loadings of grain and products for the week ending April 7 and for the five preceding weeks were: 39,370 for April 7; 43,268 for March 31; 46,599 for March 24; 44,418 for March 17; 49,533 for March 10, and 53,448 for March 3.

Employees on Class 1 steam railroads as of the middle of February, 1928, numbered 1,608,374, a decrease of 6.52 per cent as compared with February, 1927. Employees in trains and engine service decreased 7.15 per cent. As compared with February, 1926, the number of employees in February, 1928, declined 7.19 per cent.

Transportation requirements reported from thirteen Shippers Regional Advisory Boards show gains in grain, meal, flour and other mill products, and many of the side-lines in which country grain dealers are interested, excepting these commodities, for which a decrease volume is anticipated: alfalfa, cotton seed and products, hay and straw.

Cumulative loadings of grain and products for the first 14 weeks of the past five years, were the heaviest in 1928, and were as follows: 650,878 for 1928; 583,357 for 1927; 592,191 for 1926; 599,146 for 1925, and 618,185 for 1924. Cumulative loading for the first 13 weeks were: 611,726 for 1928; 547,923 for 1927; 556,320 for 1926; 564,779 for 1925, and 583,089 for 1924.

The car supply to move the Kansas wheat crop is being arranged for far in advance to preclude the possibility of any shortage. R. E. Clark, secretary of the Trans-Missouri-Kansas Shippers Advisory Board states that by the time the crop is ready to go to market there will be a reserve of 40,000 cars in the wheat belt. In addition to this number, reserves will be kept at division points.

A Regional Shippers' Advisory Board meeting was held on April 24 at Watertown, So. Dak. Coming meetings include the following: Ohio Valley, Indianapolis, Ind., June 5; Pacific Northwest, Seattle, Wash., June 8; Southeast, Savannah, Ga., June 8; Allegheny, Steubenville, O., June 14; Pacific Coast, Fresno, Calif., June 15; Trans-Missouri-Kansas, Wichita, Kan., June 20; Great Lakes, Buffalo, N. Y., June 20; New England, Boston, Mass., June 25, and Mid-West, Milwaukee, Wis., July 11.

Average daily movement per freight car of the railroads of this country in February was 29.8 miles, a decrease of 0.6 miles below the same month in 1927 but an increase of 1.2 miles above that for February, 1926. In computing the average movement per day, account is taken of all freight cars in service including cars in transit, cars in process of being loaded and unloaded, cars undergoing or awaiting repairs, and also cars on side tracks for which no load is immediately available.

Transportation requirements for twenty-nine of the principal commodities in the second quarter this year, the months of April, May and June, will be approximately 9,035,963 cars, an increase of about 323,250 cars above the requirements for the corresponding period in 1927, or 3.7 per cent, according to reports made public April 9 by the car service division of the American Railway Ass'n from thirteen Shipper's Regional Advisory Boards which cover the United States. Grain and flour headed the list.

Four billion dollars of new capital has been put into the railroad properties for trackage extension, new equipment and shop facilities and to make good the decline of the war period, in the five years since the railroads were returned to private management by the government. The net return of all railways was at the average of 4.4 per cent.

Cars loaded with grain and products during the week ending April 7 totaled 39,370, an increase of 3,936 cars above the same week of last year and 3,499 cars above the corresponding week of two years ago. For the week ending March 31, 43,486 cars were loaded, an increase of 5,986 cars above the corresponding week of 1927 and 5,854 cars above the same week of two years ago. In the Western districts alone, loadings totaled 30,099 cars, an increase of 6,682 cars above the same week in 1927.

American railroads are working steadily for increased efficiency, and have accomplished great things since they were returned to the owners by the Federal government a few years ago. The greatest records of car loadings ever known are among the accomplishments of the roads last year, and if the public is not aware of how this benefits the country it may be explained that quick, safe and dependable transportation of goods enabled the merchants and manufacturers of the country to handle their business affairs in a more satisfactory way than before. American railroads are the best in the world and constantly striving for improvement.—Jacksonville (Fla.) Times-Union.

## Port, River and Canal News.

A fixed relationship between grain and iron ore rates is now being worked upon by the lake carriers.

Quebec has changed its port by-laws to correspond with those in effect at Montreal. Now full-cargo grain vessels, including tramps, are exempt from paying a tonnage and mooring fee.

The Canadian Parliament is soon to vote on an additional \$8,500,000 appropriation to develop the Port of Quebec, \$500,000 for the Halifax Harbor and \$5,000,000 for the St. John Harbor Commission.

The federal Department of Justice's proceedings against members of the Lake Carriers Ass'n is understood to have broken up the agreement of vessel owners to hold vessels in port until midnight of April 30.

The movement of traffic thru the locks at Sault Ste. Marie amounted to 83,352,566 tons during the 1927 season of navigation—about 8 months. During the 12 months of 1927 the cargo tonnage passing thru the Suez Canal amounted to 29,524,000 tons, or slightly more than one-third the traffic at the "Soo."

Buffalo, N. Y.—An entire cargo aboard the steamer "Peterson" for winter storage, consisting of 103,000 bushels of wheat, was condemned by federal inspectors when taken to the Dellwood Elevator for unloading. The grain was very badly damaged by "heating." The Barnes-Irwin Co. of Philadelphia, owned the grain.

Baltimore, Md.—Export grain rates from interior points to the ports of Baltimore and Philadelphia were held unreasonable and unduly prejudicial to those ports and unduly preferential to New York, in a tentative report submitted by Examiner R. N. Trezise, in Docket No. 18715, following an inquiry on the petition of the Baltimore Chamber of Commerce for an adjustment of eastern port differentials. All-rail grain rates from the interior to Baltimore and Philadelphia for export were considered too high in that they exceeded rates that are 3.5 cents and 3 cents cwt. less, respectively than those maintained between the same territory and New York. The ex-lake grain rates from Buffalo for export to Baltimore and Philadelphia exceeded those to New York by 2 cents.

Lachine Canal grain traffic totaled 170,252,7 bu., compared with 177,594,782 from Buffalo thru the Welland Canal. This latter figure was an increase of 20,000,000 bu. over the previous year.

The Illinois and Mississippi Canal project, to provide federal aid in the maintenance of the Mud Creek drainage district in Illinois, was approved on April 12, by the Rivers and Harbors Com'te of the House of Representatives at Washington, D. C. The project carries the authorization for an appropriation to aid in carrying on the work of the drainage district.

There is no agreement between Canadian and United States vessel owners that movement of boats will not start until May 1, according to N. M. Paterson of Fort William, Ont. Vessels will not leave port until conditions for a safe passage are favorable. The risk of damage and danger to ships is too great in rushing the opening of navigation, as the vessels owners have learned from experience in past years.

Five of the seven new canal vessels built for the Paterson Steamships, Ltd., which concern is operated by N. M. Paterson, who also heads the grain firm of N. M. Paterson & Co., Ltd., of Fort William, Ont., have cleared from England for Sydney, Nova Scotia. The other two ships will leave shortly. All are carrying coal cargoes to Canada and will engage in canal and lake trade after once negotiating the St. Lawrence River.

Vancouver, B. C.—There was a large increase in the movement of grain laden vessels out of this port this present shipping season. Exports of Canadian grain thru here during March alone exceeded the previous high for any crop year. Receipts for the eight months beginning August 1, 1927, are well in excess of 60,000,000 bus. of all grains and there is little doubt now that the total movement via Vancouver for the present crop will reach or exceed the 75,000,000 mark predicted early in the season after the late concession made by Dominion Commissioners.

Montreal, Que.—A new method of indorsing Canadian grain inspection certificates was recently adopted, effective April 25, by the Montreal Corn Exchange Ass'n. The old form gave the impression that the identity of the grain was preserved from the time of loading at Fort William until actual loading on an ocean going vessel at Montreal. Grain in transit is loaned and borrowed at Montreal, and substitution of certificates for same grade grain became a custom, necessitated by prompt shipment. The North American Export Grain Ass'n proposes to adopt a similar form of indorsement for other Atlantic ports.

Millions of dollars were set aside on April 7 by Major-General Edgar Jadwin, Chief of Army Engineers, for rivers and harbors improvements during the year beginning July 1. More than \$7,000,000 was allotted to the Mississippi River, of which \$4,350,000 will be expended between St. Louis and Minneapolis. Another large project for which funds were awarded was that on the Delaware River from Philadelphia to the Sea. The War Department setting aside \$2,150,000 for this. More than \$3,600,000 was approved for the Missouri River, \$3,000,000 to be spent from Kansas City to the mouth at St. Louis. Other projects include: The Fox River, \$140,000; Algoma Harbor, \$500; Keweenaw Harbor, \$43,000; Two Rivers Harbors, \$10,000; Manitowoc Harbor, \$10,000; Sheboygan Harbor, \$25,000; Milwaukee Harbor, \$345,000; Racine Harbor, \$10,000; Kenosha Harbor, \$6,000; South Haven Harbor, \$10,000; Waukegan Harbor, \$40,000; Chicago Harbor, \$120,000; Chicago River, \$20,000; Calumet River and Harbor, \$45,000; Indiana Harbor, \$25,000; Michigan City Harbor, \$35,000; Illinois River, \$575,000.

Minneapolis, Minn.—The first fleet of river barges left here southbound during the first week of April, with a mixed cargo of grain, etc., aboard. Ample space for grain for export at river rates is not available, due to the inadequacy of the floating equipment.

Boston shipping interests requested an equalization of ocean freight rates some time ago, which, according to testimony by Baltimore, Philadelphia, Norfolk and some other North Atlantic ports, would destroy the rail differential now enjoyed. So now the Shipping Board has decided to institute a formal investigation on all trans-Atlantic rate structures on cargoes originating in the Middle West.

## Navigation Opening.

Three times only in 75 years have the Straits of Mackinac been closed by ice as late as May 1.

St. Lawrence River navigation season opened on April 22, when three ocean going bottoms arrived at Quebec, bound for Montreal. Three more passed Quebec on the 23rd.

Ice at Head of the Lakes is reported to be thicker this year than for some years past, being fully 20 inches thick just off the docks at Port Arthur when ice-breaking operations began the past two weeks.

New York State Barge Canal was still impassable on the week ending April 21, owing to lack of water in the section between Lockport and Rochester. Many vessels await the opening of the "ditch."

Ice Conditions at the Soo are unfavorable for an early opening of navigation, according to a late dispatch. A Northwest wind has driven the ice back to Whitefish Point and the field extends beyond vision. Whitefish Bay and lower river ice solid.

What is believed to be the first barge shipment of grain out of Minneapolis to New Orleans for export, was loaded on the Mississippi River barge line toward the first part of the month by the Sheffield Elevator Co. The load totaled around 40,000 bus. wheat.

The Welland Canal was supposed to have been officially opened for navigation on April 16, however, a landslide and great masses of ice prevented, particularly ice at the Port Colborne end. Even had the channel been opened there was a total absence of traffic and indications were that there will be no boat movements until later in the month.

Beleaguered by ice from above and below the grain-laden steamer, James B. Eads, with a crew of 20, lay helpless in the St. Mary's river on April 12 half way between the Sault and Detour with food and coal running short and tugs blocked by extensive fields of ice from coming to her aid. She weighed anchor in the West Neebish rock cut during the first week in April after wintering in the cut. She proceeded half way down stream and was forced to stop crosswise of the channel with further progress blocked by ice eight to twelve inches thick.

Ice-breaking operations at the Head of the Lakes got under way on April 16, according to a report from the Canadian Dredging Co., of Port Arthur. After cutting a channel thru the ten miles of "bay" ice to open water beyond the Welcome Islands, the tug "Whalen" aided in releasing the fleets locked in the harbors of Fort William and Port Arthur. Similar work is being carried on near the Soo, and according to reports from there navigation was to be opened between April 20 and 25. It is not likely that vessels will leave the twin ports until conditions are propitious for a safe departure of ships and a good voyage across Superior, according to N. M. Paterson, head of the Paterson Steamships, Ltd., and the grain house of N. M. Paterson & Co., Ltd., of Fort William, Ont.

## Early Chartering of Boats.

Ocean vessel operators are expecting a busy grain shipping season as soon as the St. Lawrence re-opens. Up to the present, altho tonnage has been offered at very favorable rates, not much chartering for the moment of Canadian grain has taken place.

The movement via the Atlantic Seaboard has been comparatively quiet, altho tonnage has been available at very low rates. Charters of tramp tonnage at as low as 7c per 100 lbs. to Continental ports and 5c a bushel to United Kingdom ports have been reported, and even lower rates for berth parcels. Up to the present the stocks in store and afloat at points east of the Great Lakes have been amply sufficient to fill the requirements for shipment from the Atlantic Seaboard. The quantities afloat at U. S. A. points have now been unloaded and little more than 4,000,000 bushels are still afloat at Eastern Canadian ports, comprising principally what is en route to Montreal for shipment on the opening of navigation there.

According to Broomhall, importers will require about 16,000,000 bus. of wheat weekly until the end of July. Besides the quantities which will move via Vancouver and Prince Rupert, there will be some 10,000,000 bus. available for shipment via the Atlantic seaboard, not including the carry-over at the end of the season.

## Books Received

ENCLOSED MOTORS is a supplement to "Electric Power for Country Elevators" illustrating and describing the self-ventilated motors now made by eight manufacturers in response to the demand for a reduction of the electrical fire hazard. The author is R. D. MacDaniel, director of field service, and copies will be sent to those writing the Grain Dealers National Mutual Fire Ins. Co., Indianapolis, Ind.

BROWN-DUVEL MOISTURE TESTER, revised December, 1927, covers the following: How to make a moisture test, how to test different substances, influence of cooling time on moisture test results, how to choose extinguishing temperatures, drawing and handling samples, and covers other special points for consideration. Copies may be procured for 15 cents from the U. S. Government Printing Office, Washington, D. C.

THE OFFICIAL GUIDE OF THE RAILWAYS and Steam Navigation Lines of the United States, Porto Rico, Canada, Mexico and Cuba, also time tables of Railroads in Central America, March number, gives all time tables of all railroads thruout the territory described. This very convenient text is published by the National Railway Publication Co., 424 West Thirty-third Street, New York, N. Y., and sells for \$18 a year, or two dollars a copy.

A FARMERS COMPANY Comes of Age is the title of a handsomely printed pamphlet giving the 21 years' successful history of the United Grain Growers Limited. This company now operates country elevators at almost 400 points in the three provinces, terminal elevators at Port Arthur and Vancouver, and export offices at Winnipeg and New York. In its pictorial excellence this 71-page brochure does credit to the printing plant owned by the United Grain Growers, Winnipeg, Man.

SHALL WE CHANGE OUR GRAIN MARKETING SYSTEM? by James E. Boyle, professor of rural economy, Cornell University, describes the present system, touching upon grading, dockage, weighing, mixing, transportation, storage, credit facilities, market information, and price. The author next describes the wheat pool and co-operative marketing methods and makes the following conclusion: "The new plan of grain marketing, now being proposed, is economically unsound, and is in direct violation of the teachings of our new nation-wide experience in marketing. To promote such an unsound system with public funds will ultimately hurt the farmers themselves." Bulletin No. 3. Grain Dealers National Ass'n, Toledo, O.

## Advantages of the Modern Country Elevator.

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in recent years and will continue until electric power is available at most stations and at decreasing costs.

While the cost of current at present is relatively high at country points, the convenience of the motor in starting and stopping, the manner of application, with reduction of the friction load and a lower insurance charge, will in most cases show a lower cost for motor power than the ordinary internal combustion engine.

Many power companies limit the size of individual motors to 25 HP. This is to reduce the effect on the line, as motors require as high as 400% of the full load current, when starting. This limitation in the size of motors does not affect elevator operation, as individual motors, larger than 10 H. P. are seldom required.

Attrition mills with double head runners, motor driven, have two motors, which may be equipped with individual starters where the motors are larger than 10 HP.

Motors now used in elevator service are the enclosed ventilated type. There are several standard makes on the market which do not use ventilating pipes; both 3 phase and single phase motors are enclosed. Insurance charges are lower with this type of motor.

Diesel and semi-Diesel engines are much less expensive to operate than motors at the prevailing charges for electric current.

Where there is a continuous use of power or where the power required on a single unit exceeds 25 HP., such as large attrition or hammer mill, the Diesel type of engine affects large savings in cost of power. The initial investment, however, is much greater.

**Speed Reducers:** The application of motor power to the elevator legs has been simplified by the introduction of several types of speed reduction drives, which are easily installed and which reduce the friction load, possibly 15 to 20%.

**Anti-friction bearings** of either the ball or roller type are rapidly coming into favor. These bearings reduce the friction load, but the greatest advantage in their use lies in the removal of the "hot box" hazard. Insurance companies recognize this fact by giving credit on the insurance rates. These bearings are lubricated by the Alemite or Zerk grease system and need attention only at intervals of two or three months.

That the use of anti-friction bearings make a real saving in operation, is indicated by the action of one of the large line elevator companies, in specifying these bearings on every shaft in new elevators and as replacements in their old houses.

**High speed elevator buckets** are being widely used, as replacements in existing legs, to increase the capacity; and in new installations to keep down the size of legs and simplify the motor reduction on head drives.

The modern grain elevator, in both construction and equipment, has kept pace with the demand for efficiency in modern business. Elevator companies with progressive and able management are improving their plants every year. Many are wrecking their old plants, realizing that even with a large layout for improvements, they will still be far from securing a plant which can be efficiently and profitably operated under existing conditions, and the new elevator will be the better investment.

A completely modern elevator will not only increase the volume of business, through better service to the community, but will open opportunities for lines of profit, which were impossible with the old worn out and inadequate plant and equipment.

**Anti-friction bearings** will do all that is claimed for them, but they will not strengthen weak head timbers or shafting that is too small or bowed out of line.

## Additional Concrete Storage at Mansfield, O.

Remodeling of any part of an existing monolithic concrete structure for operation as part of a greatly enlarged plant is confronted with many expensive engineering problems, but designing additions to existing concrete grain storage structures has been satisfactorily solved in many instances. That grain elevator engineers have been so successful in adapting the new to the older portions of the plant speaks well for their resourcefulness and ingenuity.

For long-time storage, where grain is not to be moved constantly in and out, there is an economy in the construction of taller tanks. Available ground area is another consideration making for taller tanks.

A good example of the present trend toward higher tanks is the new storage annex of the Cleveland Grain & Milling Co., at Mansfield, O., where, instead of filling the new tanks by extension of the conveyor belts over the old storage annex, it was found advisable to build an entirely new leg connecting the new and old tanks.

The new storage unit is 129 ft. high from foundation slab to top of tank and measures 150 ft. 2 ins. by 60 ft. 5 ins. on the ground. The tanks are 118 ft. 6 ins. high above basement floor, 29 ft. 4 ins. in diameter, with walls 7 ins. thick. The tanks over the tanks is 10 ft. 6 ins. high and 20 ft. wide.

The ten large tanks are in two rows, leaving 4 interstice bins and 8 outer spaces, or pocket bins, the large tanks each having capacity for 58,658 bus., the inter spaces, 14,038, and the outer spaces, 5,350 bus. each, making a total capacity for this addition of 685,532 bus. The bins have steel hopper bottoms, giving an opportunity for a daylight basement and increasing the storage for the named height of bin. The tanks is of structural steel, covered with corrugated iron.

The machinery equipment comprises one elevator leg with 15x8x8 Buffalo buckets, staggered in two rows 13 in. centers on the belt, one 36-in. belt conveyor in tank with one tripper, and two shipping 36-in. belt conveyors in basement.

Four Fairbanks-Morse Motors of 75, 20, 15 and 15 h.p. drive the leg and the conveyors. The motors are of the double squirrel cage type, with no voltage and overload relay type of protection, using 440 volt 3-phase current and run at 1,600 r. p. m. The drive to elevator head is by Stewart-Falk Herringbone Gear, with flexible coupling between motor and gear set. The conveyor belt drives are Morse Silent Chain. The leg motor is housed in a sheet iron enclosure, with its starter down on the bin floor.

All take-up bearings, tripper bearings, conveyor roller bearings and concentrators have babbit bearings, all of the grease cup type. The tripper and all of the conveying machinery was furnished by the Weller Mfg. Co.

Outside the structure and paralleling the receiving leg is a spiral steel stairway from the top of the old to the top of the new tanks. This circular stair was supplied by the Weller Metal Products Co., which also supplied spouting, elevator leg casing, conveyor bridge, conveyor runways and miscellaneous structural steel. The rubber belting was made by Goodrich.

The loftier leg sets in a steel boot tank. A by-pass spout from bin floor of the existing storage extends to this boot, which also receives grain from the two 36-in. shipping conveyors under new storage bins, each of which also discharge upon one of the existing shipping conveyors, as well as into the leg. Grain can be spouted direct from the leg turnhead to two nearest tanks, to the interstice tank, to two of the pocket bins on the outside and to the storage conveyor. This leg has a capacity of 15,000 bus. per hour.

The outside bins are ventilated at the top thru louvres, 6 ins. by 2 ft., of 1-in. lumber.

All steel exposed to the weather has two coats of aluminum paint. The workhouse and storage roofs are covered with 4-ply coal tar pitch composition felt and gravel roofing. The tunnelway connection with existing plant is of structural steel, with corrugated iron sides and roof. The windows are of metal sash; and the top of cupola is a 24-in. square scuttle.

The addition was designed and erected by the James Stewart Corporation.

An illustration of this annex is presented on the outside front cover of this number.

## Hearing at Chicago on Grain Rates.

Examiner Disque began a hearing Apr. 9 at Chicago on grain rates under docket I. & S. 3006.

Eugene Morris of the C. F. A. submitted a new set of rates in place of those under suspension, so that rates from the Northwest as well as from the Southwest would break over the junctions of the Western lines with the Eastern lines, the factors east of the gateways being the same on all traffic. He claimed that water competition justified lower rates from the Northwest.

A. F. Cleveland of the Northwestern advocated the suspended rates. He was joined by G. A. Hoffelder of the Q and E. Rigg of the Rock Island. The Southwestern Millers' League, represented by E. H. Hogueland, also favored the suspended rates and opposed Mr. Morris' new suggestion. Several other Southwestern millers joined in testifying that their ability to compete in C. F. A. territory with the Northwest was diminishing rapidly.

**Elevator boots** without take up boxes to keep the leg belt taut at all temperatures should not be tolerated. The saving in power, cups, belt and time will more than offset the small extra cost of boots properly equipped.

## Special Rates and Cars to Sioux City Convention.

Terminal commission men will travel stylishly en masse to the Sioux City Convention of the Western Grain Dealers Ass'n, to be held in Sioux City May 1-2. The opportunity of joining them will be a rare treat, for sociability and good fellowship will run rampant.

The "Milwaukee" has even scheduled a special \$1.50 table d'hôte dinner for their "preferred" clientele on this occasion. This meal alone is enough to swing all the business to the Milwaukee's Special for the Grain Dealers.

Extra sleeping cars will be put on "The Arrow" of the C., M., St. P. & P. R. R., for the special and exclusive use of the grain dealers. The Chicago delegation have chartered a full car, and a second is rapidly filling. A special car loaded with Milwaukee delegates, leaving there at five, will be attached to "The Arrow" at Savanna, Ill.

St. Louis, Minneapolis, Kansas City (and south), and Denver and Peoria grain men also plan special transportation arrangements.

"The Arrow" is a popular fast train leaving Chicago Monday, April 30, at 6:20 p. m., arriving at Sioux City at 8:25 a. m., Tuesday, May 1, in time to check in at the Hotel Martin—just three short blocks distance from the station, register, and shake hands around before the first session is called to order.

The equipment on "The Arrow" is the finest known to railroad travel. The sleepers, owned by the railroad, are of special construction, large and roomy. Ventilation is perfect and every detail that makes for the comfort of the grain men has been provided.

Special rates of a fare-and-a-half have been granted to the trade coming from as far east as Boston and from as far west as Colorado, Texas on the South and Winnipeg on the North. The "Certificate Plan" will be followed, delegates obtaining a receipt upon purchasing one-way ticket to Sioux City. This receipt will be validated at Sioux City and will entitle holder to purchase half-fare ticket returning. This special rate applies over all railroads. One hundred and fifty fares are required to obtain the special rate, but at least three hundred are expected to come via rail. So, get a receipt when you buy your one-way ticket to Sioux City, and have it validated at the Hotel Martin!

Returning, the special cars on "The Arrow" will leave at 5:40 p. m., May 2, arriving in Chicago at 7:40 a. m. and at Milwaukee at 9:15 a. m., May 3rd.

## Seeds

**Sidon, Ark.**—H. Davis lost his seed house by fire recently.

**A Wheat Variety Conference** was held in St. Louis on April 18.

**Clinton, Ia.**—The Becker Seed Co. has enlarged and remodeled their quarters.

**Fredonia, N. Y.**—The capital stock of the Fredonia Seed Co. has been raised from \$50,000 to \$100,000.

**Pine River, Minn.**—Robert and Peter Schaffer are in charge of the recently opened Pine River Seed House.

**Buffalo, N. Y.**—A large addition is being erected by the Eastern States Milling Co. for the storage of seeds.

**Marion, Va.**—J. E. Hubble is manager of the newly incorporated Smyth Farm Supply Co., Inc., dealing in feeds, seeds, etc.

**A soybean crop** of 1,000,000 bushels have been contracted for by two of the largest feed mills in Illinois at \$1.35 per bushel.

**Fremont, Neb.**—The Frederick Seed Co. of Aurora, Neb., move its headquarters into its modern field seed corn handling plant here about May 1.

**Pure seed samples** of 28 leading varieties of Minnesota field crops were recently sent to Hohenheim, Germany. These seeds will be planted in experimental plots.

**The fourth International Congress of Entomology** will be held at Cornell University, from August 12 to 18, 1928. Scientists from all parts of the World will gather here.

**Minneapolis, Minn.**—An issue of \$550,000 first mortgage bonds is being floated by the Twin City Trading Co., a subsidiary of the Albert Dickinson Co., seed and feed merchants.

**Manteca, Calif.**—C. D. Huffsmith of Greeley, Colo., has bought and taken possession of the business of A. S. Paul, known as the Manteca Seed & Grain Co. Mr. Paul started in business here in 1921.

**Toledo, O.**—Transit arrangements have been secured for this market on seeds, it now being possible to ship seed in from western points of origin and reship further east in straight or mixed carloads on a thru rate.

**Baltimore, Md.**—Thomas Johnston, seed and grain commission merchant of the firm bearing his name, died at his home here on April 11, aged 71. He had been suffering from a general breakdown for several weeks.

**Ottawa, Ont.**—The third reading was given in the House of Commons on April 17 to a bill amending the Seeds Act. The bill provides authority for the determination of qualities of seeds by an Advisory Board.

**Wild garlic in wheat** is on the wane in southern Illinois, according to J. L. Grigg, secretary of the Southern Illinois Millers' Ass'n. Both scientific and financial aid was obtained from both state and national governments.

**Red Wing, Minn.**—D. O. Anderson, who for many years has been associated with the Albert Dickinson Co. at Owatonna, has become interested with K. R. Seiler in the Red Wing Feed & Seed Co., and has already taken up his duties.

**Shenandoah, Ia.**—A. M. Eldridge has become associated with Henry Field Seed Co., recently resigning his position with George Lawler of Tacoma, Wash. He was formerly connected with L. L. Olds Seed Co. of Madison, Wis. Mr. Eldridge was at one time connected with the Shenandoah house and at that time was also secretary of the Iowa Seed Dealers Ass'n. He now becomes general office superintendent.

**Seattle, Wash.**—Ogden Christensen, formerly vice-president of the Northwestern Seed Co. of Seattle and Portland, is the new president and manager of Boyce Seed Co. here. He has been well known to the trade for the past twenty years.

**Stillman Valley, Ill.**—A new seed warehouse has been constructed adjacent the west end of Rosenstiel & Co.'s elevator here. The iron covering is now being put on. It is planned to install a large capacity cleaner to replace the small one now in use.

**A. J. Ogaard**, Executive Secretary of the Farm Seed Ass'n of North America, will open permanent quarters in Chicago on May 1. At present, Mr. Ogaard is making an extended trip thruout the Southwest, prior to an anticipated journey to Washington.

**Oats** with a larger waist line and shorter wheelbase are the desirable characteristics of that grain, as described by officials of the Quaker Oats Co. The company used practically 32,000,000 bus. of oats last year. Certainly the miller of such a vast sum deserves no little consideration.

**The Bureau of Plant Industry** in the Department of Agriculture received an increase of \$5,642 in the appropriation bill for the coming fiscal year, to enable the department to employ men to check the adherence to the coloring of imported alfalfa and red clover seed as provided in the Seed Act.

**Sidney, O.**—Harry F. Custenborder is now handling seeds as a representative of the S. W. Flower Co. of Toledo. He is traveling and is not operating a business at Sidney. As reported last August, The Sidney Grain Co., of which Harry was manager, was sold out to the Ginn Grain Co., who handle grain, seeds and feeds and do a general country elevator business.—J. Carl Custenborder, E. T. Custenborder & Co.

**Springfield, Ill.**—The Springfield Seed Co. recently celebrated its 31st anniversary. This field and grass seed house started out as Ricketts & Walker, with a capital of \$1,100. It has grown rapidly so that today the firm is incorporated for \$150,000 and now employs 88 in six departments. The Pioneer Floral Co. is operated in connection with the seed company. Present officers of the seed company are: R. R. Ricketts, president; W. D. Murray, vice-president; F. G. Ricketts, vice-president; E. A. Davis, secretary-treasurer.

**"The Effect of Carbon Bisulphide** on the Germination of Maize," by A. R. Saunders and R. O. Wahl (Union So. Africa Dept. Bul. 28 (1927), pp. 4, fig. 1).—Corn containing 12.3 per cent of moisture and treated with carbon bisulphide at the rate of 9 lbs. per 1,000 cu. ft. was stored as long as 3.5 months in hermetically sealed containers without injury to germination. Storage could be endured for 6 months if but half the chemical was used. It is stated that corn with a higher moisture content will suffer greater injury under these conditions.

**Postal rate revisions** downward, as contained in the Griest bill, passed the House of Representatives on April 2, then proceeded to the Senate. The rate of postage on third-class matter is made 1½ cents for each 2 ounces or fraction thereof, up to and including 8 ounces, except that the rate of postage on books, catalogs, seeds, cuttings, bulbs, roots, scions and plants, not exceeding 8 ounces in weight, is 1 cent for each 2 ounces or fraction thereof. The rate of 8 cents for each pound or fraction thereof is given for a new service permitting the mailing of separately addressed identical pieces of third class matter in quantities of not less than 20 pounds or not less than 200 pieces subject to pound rates applicable to the entire bulk mailed at one time, on books, catalogs, seeds, cuttings, bulbs, roots, scions and plants. The provisions become effective July 1 next.

**Yuma, Ariz.**—Blalack & Whitman Seed & Feed Co.'s warehouse burned April 4 with an accompanying loss of \$100,000, but partially insured. One hundred bales of hay were saved when the wind shifted favorably. A large supply of Bermuda, understood to be the largest within the entire country, was destroyed beyond all possibility of reclamation. A new warehouse will be completed on the same site as soon as possible.

**A campaign** is being conducted by some Missouri farm papers to educate their readers to buy and plant only pure seeds of known origin. The state has a good pure seed law on the statute books but no money available to provide for inspectors to enforce same. As a consequence, these farm papers are pointing out to farmers that it is safest to patronize dealers who buy from accredited sources. Attention is also called that in buying from mail order houses to be sure that the state law covering proper labeling is complied with.

**A com'te of Chicago seedsmen** met on April 10 to discuss the program and entertainment features of the coming annual convention of the American Seed Trade Ass'n, the sessions of which will be held in the Stevens Hotel, Chicago, on June 27-29. Leonard Condon, president, presided. The turnout is expected to be the largest on record. All the various executive com'te meet on the 26th. The first open session is slated for the morning of June 27. That afternoon various sectional gatherings are scheduled. The president's reception is on that evening.

### New Seed Trade Marks.

**The Nebraska Seed Co.**, Omaha, Neb., has filed trademark Ser. No. 259,456, particularly descriptive of blue and sudan grass seed. The mark consists of three green stripes, one-half inch wide, horizontally displayed on the upper and lower portions of the sack eight inches from the top and bottom and running entirely around the sack.

## Directory

### Grass and Field Seed Dealers

One line, one year (24 issues), \$10.00.

#### AMARILLO, TEXAS.

Hardeman-King Co., field seed merchants.

#### BALTIMORE, MD.

Wm. G. Scarlett & Co., wholesale and merchants.

#### CINCINNATI, OHIO.

McCullough's Sons, The J. M., field and garden seeds.

#### CONCORDIA, KANS.

The Bowman Seed Co., wholesale field seeds.

#### COUNCIL BLUFFS, IOWA.

Council Bluffs Seed Co., seed corn, nothing else.

#### CRAWFORDSVILLE, IND.

Crabbs Reynolds Taylor Co., grass and field seeds.

#### FT. WAYNE, IND.

Kraus & Apfelbaum, field seed dealers.

#### KANSAS CITY, MO.

J. G. Peppard Seed Co., field seed merchants.  
Rudy-Patrick Seed Co., field seed merchants.  
Tobin-Quinn Seed Co., Missouri Blue Grass.

#### LIMA, OHIO.

Ackerman Co., The, wholesale grass field seeds.

#### LOUISVILLE, KY.

Louisville Seed Co., clover and grasses.

#### MILWAUKEE, WIS.

Courteen Seed Co., field seeds.  
Kellogg Seed Co., field and grass seeds.  
North American Seed Co., wholesale grass & field seeds.  
Teweles Seed Co., L., field and grass seeds.

#### MINNEAPOLIS, MINN.

Minneapolis Seed Co., field seed merchants.  
Northrup King & Co., field seeds.

#### ST. LOUIS, MO.

Cornell Seed Co., field-grass-garden seeds.  
Mangelsdorf & Bro., Ed. F., wholesale field seeds.

### A Successful Salvage Saver.

When an elevator filled with grain burns, there is always a problem for the insurance companies as well as the insured to take care of the grain that is not destroyed.

If the elevator is a frame structure the combustible materials burn freely. However, while a considerable portion of the grain is damaged or made unfit for use, a large percentage of it is of value and must be taken care of as quick as possible after the fire in order to secure its highest price.

John C. Cretty, known throughout the country as "Jack," is the oldest salvage operator in point of service in the United States. He is salvage superintendent for the Brooks Elevator Co., who deal in salvaged grain stocks.

Jack was born in 1862, and attended school in a log schoolhouse in Southern Minnesota. In 1885 he operated an elevator at Fairfax, Minn., which used for motive power two blind horses. At a later date he was traveling auditor for A. D. Mulford & Co., and also operated a mixing house at Albert Lea, Minn., for George C. Harper & Co. He is a highly qualified judge of grain. During the past twenty years he has devoted his time to handling salvaged grain. In that time he has traveled all over the United States and over a considerable portion of Canada.

It is an easy matter to load grain into cars from an elevator with modern equipment, but it is frequently a serious problem properly to load grain in the cars after it has been through a fire. Unusual care must be used to keep the various kinds of grain separate. It has been Jack Cretty's job to load grain from fires involving from one carload to over a hundred cars. It is up to him to improvise loading equipment to the best possible advantage and frequently he works under considerable disadvantage. His methods range from laborers who shovel grain into tin tubs and carry it into the cars, to installing modern power equipment where the size of the pile warrants it. He has often resorted to the use of farm grain loaders, depending for motive power on tractors, or a



Above: John C. Cretty, Salvage Expert, Minneapolis.  
Below: Salvaging Grain from Ruins of International Elevator at Cavalier, N. D.

Ford automobile jacked up and a pulley substituted for a rear wheel, upon which is lined up a belt.

At Columbia, S. D., a few years ago, fire elevators burned in a conflagration. Jack Cretty intended the saving of the salvage from fire elevators piles in a masterful way.

Altho sixty-six years of age, he is invariably the most active man about the salvage pile. Weather conditions do not impede his progress. He has handled piles of grain at twenty-five degrees below zero and has also handled it in the extremes of summer's heat. He has worked through terrific blizzards, as well as during prolonged rainy seasons. He has developed into a real smoke eater. He comes of hardy, Irish stock.

One of his first considerations upon arriving at a salvage pile is to remove the burned timbers and this is accomplished by using teams, tractors or manual labor.

The grain salvaged is sold for a variety of uses. It is principally consumed for animal and chicken feeds.

The photographs accompanying indicate the conditions under which a salvage operator must work. Truly, Jack Cretty is a well known character and fills a unique position in the grain trade of the United States.

## FIRE



can quickly consume your business, which has taken years to build up. Fire Barrels at strategic places throughout your elevator provide good protection against this menace.

Write for particulars relative to our better Fire Barrels and High Test Calcium Chloride which prevents freezing and evaporation.

Carbondale Fire Protection Co.  
Carbondale, Penn.

### Western Grain Dealers Mutual Fire Insurance Company

DES MOINES, IOWA

J. A. KING, President  
A Legal Reserve Mutual Fire Insurance Company

### TRI-STATE MUTUAL GRAIN DEALERS FIRE INSURANCE CO.

LUVERNE, MINN.

We write Fire and Tornado Insurance covering Grain Elevators and contents, also Dwellings and Mercantile property.  
OVER HALF A MILLION DOLLARS RETURNED TO OUR POLICYHOLDERS IN 26 YEARS  
ASK ABOUT OUR SAVING PLAN

E. A. Brown, Pres. W. Z. Sharp, Treasurer  
W. J. Shanard, Vice-Pres. E. H. Moreland, Secretary

## What Are You Doing

to protect your elevator against lightning, one of the greatest hazards endangering your business? Take into consideration that lightning can destroy in a few moments what it has taken you a lifetime to build up. Why take this chance? The DODD SYSTEM OF LIGHTNING PROTECTION is absolute protection against lightning, and its installation on your elevator reduces your insurance costs quite materially.

Write for Details

**Dodd & Struthers**  
Des Moines, Iowa

## FIRE HAZARDS

are too often allowed to creep into a plant unnoticed.

THE MILL MUTUAL Insurance companies are prepared to furnish expert opinion which will minimize both the likelihood of fire loss and your insurance cost.

On any and every question of possible fire hazard write your Mill Mutual Company or this office.

**Mutual Fire Prevention Bureau**  
230 East Ohio Street  
Chicago, Ill.

## Feedstuffs

**Eau Galle, Wis.**—Fire destroyed the Miles Feed Mill recently.

**Elizabethtown, Pa.**—Wolgemuth & Maheira have installed a Superior Batch Mixer.

**Camden, N. Y.**—The Grange Feed Mill, which burned on March 14, is to be rebuilt.

**Hartland, Minn.**—A feed mill is soon to be opened here by an unnamed party from Bedford.

**LaFontaine, Ind.**—The A. B. Martin Grain Co. has installed a batch mixer and a corn sheller.

**Wilmington, Calif.**—The Keystone Feed Co. has recently been established here by D. L. Gallan.

**Bell, Calif.**—The Quality Feed & Fuel Co. has opened a branch here in charge of M. Leimerdinger.

**Normandy, Mo.**—The Fertson Coal & Feed Co. has opened a branch here in charge of Will Strube.

**Chicago, Ill.**—Albert Miller & Co. have moved into the new Chicago Mercantile Exchange building.

**Monticello, N. Y.**—The Monticello Feed Co. has been incorporated to deal in feeds, cereals and grains.

**Cobb, Wis.**—John Drury and Llewellyn Clark are converting leased property here into a feed manufacturing unit.

**Arcadia, No. Dak.**—John Kamla has purchased the interests of his partner, George Kostner, in the Arcadia Mill & Feed Co.

**Morgan, Minn.**—The Morgan Feed Mill, operated by T. E. Eier & Son, has been remodeled and new equipment installed.

**Wheeling, W. Va.**—Bruce Anderson and Lewis Wright have purchased the feed and mill business of A. G. Isiminger & Co. here.

**Alexandria, Neb.**—Additional feed equipment is going into the plant of the McDowell Milling Co., to accommodate a growing clientele.

**Montreal, Que.**—A special board of examiners for the inspection of meal was recently appointed by the Montreal Board of Trade.

**Kent, O.**—The Kent Feed & Supply Co. is adding a new warehouse and office building. W. N. Heisler is president and N. A. Patterson, the treasurer.

**Murray, Ky.**—W. W. McElrath has secured a one-third interest in the Smith-Ross Wholesale Feed Co. Another retail outlet was recently opened here.

**Fergus Falls, Minn.**—The Peterson-Bidlick Co. of Wadeha, opened a branch feed, seed and poultry house here with H. J. Davies in charge.—P. J. P.

**Anoka, Minn.**—New and larger quarters are to be occupied by the Anoka Feed Co. on May 1, their growing clientele making the enlargement imperative.

**Norwalk, Calif.**—A branch merchandising establishment has been opened here by Williams Brothers, Los Angeles grain, feed, hay dealers and warehousemen.

**Kearney, Neb.**—The Western Alfalfa Milling Co., Inc., was of late incorporated with a capital stock of \$20,000, by Wm. H. Pace, Howard A. Clark and Wm. Cox.

**Cresco, Ia.**—Joseph Kaupel has purchased the Briery Feed Mill. Following considerable remodeling and renovating of equipment, the plant will be opened for business.

**Buffalo, N. Y.**—The Sunset Feed & Grain Co. was recently selected as sales representative for the old process oilmeal produced by the local mill of the American Linseed Co.

**Jackson, Mo.**—McWilliams & Query are going to erect a two-story brick building to house their feed and seed business. The partners are C. M. McWilliams and C. R. Query.

**Lebanon, Tenn.**—The Watertown Grain & Feed Co. and the Checkerboard Feed Co. have consolidated. Rail Jennings, H. H. Davis and H. B. Hudson will operate the merger.

**Portland, Ore.**—The Hogan-Jacob Feed Stores were recently incorporated with a capital of \$10,000, to deal in feed, grain, hay, flour, etc., by D. B. Hogan, R. C. and A. C. Jacob.

**Glen Allen, Va.**—The Virginia Cereal Co., Inc., was recently chartered with a capital of \$15,000, incorporated by D. A. Waddill of Richmond, and S. Crump of this place.—P. J. P.

**Lewisburg, W. Va.**—The Farmers Service Co. has been incorporated for \$25,000, to operate a feed mill. R. H. Tuckville, J. B. Snydersticker and S. P. Preston are the incorporators.

**Buffalo, N. Y.**—The directors of the Eastern Federation of Feed Merchants met in Buffalo last week to determine where their summer meeting should be held. Buffalo was favored.

**Kosciusko, Miss.**—The Attala Milling & Produce Co. has been incorporated by J. O. Ashworth and J. Niles Boyd of Memphis, Tenn., to erect a \$75,000 mixed feed and cold storage plant.—P. J. P.

**Astoria, Ore.**—The Columbia Supply Co. has been incorporated with \$20,000 capital stock, to deal in feed and grain. Charles V. Miami, H. W. Ostrim and E. F. Wenckebach are the incorporators.

**Aztec, N. Mex.**—Charles Goulding has purchased the James G. Lanier Feed Co. and will operate same as the San Juan Supply Co. An expansion program includes a new large warehouse and other improvements.

**Sioux City, Ia.**—The plant of the Sioux Milling Co. has been leased to the Well Worth Milling & Grain Co. of Minneapolis. Alfalfa will be ground for the manufacture of dairy and hog feeds. The plant has 100 tons daily capacity.

**Boston, Mass.**—The Farmers' Hay Co. has been incorporated by Harry C. Dunbar of Wellesley Hills as president, and Catherine R. Burke of Natick as treasurer, for \$15,000, to deal in feed, grain, hay and straw, etc.

**Beresford, So. Dak.**—The Star Feed Co. was recently established by L. B. Spracher of Sioux Falls. Complete equipment is being installed for manufacturing a line of feed. The plant is expected to be completed for operation by May 1.

**Atlantic, Ia.**—The Bailey Feed Co. has moved into the larger and more commodious quarters formerly occupied by T. A. Hupp. Clarence Scherdin, formerly associated with Mr. Hupp, becomes connected with the Bailey concern for a time being.

**Vancouver, B. C.**—The Vitomen Cereal Co. and the Manitoba Grain Co. are being sued for specific performance of an agreement made Sept. 1, 1925, whereby certain Vancouver property was to be purchased from the plaintiffs, E. A. and A. E. Burnett.

**Galveston, Tex.**—A feed plant with 100 tons daily capacity will be built in connection with the Galveston Rice Milling Co. The concern also plans on doubling their 2,400 bbls. capacity. The feed unit will specialize in dairy feed in order that the new mill may use Texas molasses and rice by-products. The projects will be completed before the summer is over, it is understood from an announcement from President L. W. Simons, who also heads the Mutual Rice Co. of Crowley. Mr. Simons is likewise president of the American Rice Millers' Ass'n.

**Friend, Neb.**—Additional sacked feed storage is being completed in the form of a new warehouse for the Acme Mills & Elevator Co. New grinding and pulverizing equipment will be installed in the plant. A large tank for storing and handling bulk molasses is already in use.

**Hoboken, N. J.**—Hannibal, Inc., is the name of a newly incorporated feed and flour and coal firm establishing itself here. The capital stock of this new enterprise is \$100,000. Incorporators are August Hannibal, Junior and Senior, and Lenora H. Hannibal.

**Memphis, Tenn.**—The members of the Memphis Merchants Exchange plan to be prepared to trade in cottonseed and cottonseed meal options before the summer is up. This service will provide hedging facilities for the industry, there being no such market in existence at present.

**The retreat of horses and mules** brought about by the advance of the internal combustion engine has ceased, if price is an accurate indicator, according to the U. S. Department of Agriculture, which believes the low point in the cycle of horse and mule production has been passed.

**Texas feed dealers** seem to be favoring brands containing mineral supplements, particularly those containing steamed bone meal, ground limestone, salt, etc. There was a distinct increase in the number of trade marks registered containing mineral ingredients this past year in Texas.

**The Central Retail Feed Ass'n** will hold its third annual convention in Milwaukee on June 12 and 13, it was decided at a special meeting of the executive com'ite. All the important problems of the trade are to be discussed, including selling for cash, feed accounting, grinding costs, custom mixing, what a dealer should know about poultry and dairy feeds and feeding, etc.

## GRAIN DRIERS

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SEED CORN,  
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### WILLEY-ELLIS CO.

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**Bruno, Minn.**—The Bruno Farmers Feed Ass'n, Inc., has been incorporated with a capital stock of \$5,000, to conduct any agricultural, dairy, mercantile, manufacturing or mechanical business, etc., by J. H. Hill, E. J. Rodenberger, Earl Howey, Henry Brandt, Frank Olseon, Bert DeMares and Hiram Walsh.

**Murphreesboro, Tenn.**—Immediate steps will be taken to rebuild the burned feed manufacturing properties of the Shawnee Mill & Grain Co., which unfortunate happening incurred a loss to the owners, Earl Roberts and James M. Butler, of \$40,000. The firm organized but a few months ago.

**Rockford, Ill., April 19.**—Considerable feeding is done in this section and all the elevators have been shipping in corn to supply the trade. Some oats were raised last year but there now seems to be a scarcity and many are wishing they had saved their oats instead of shipping them out. It rained some this afternoon and looked like more rain tonight.—E. W. M.

**Oshkosh, Wis.**—W. C. Blissett, one of Oshkosh's oldest feed dealers, passed away at his home on April 10. He had been failing in health for several years. Born 76 years ago in Dodge County, Wis., Mr. Blissett came to Oshkosh in 1873 to establish himself in the feed business. His son, Dell Blissett, succeeds him in the business. His widow, one daughter and two sons survive.

**The chicken feed business** has been enormous for the last three months in this section, and has practically superseded all the other ordinary grain business that has gone on heretofore. A good many smaller plants are attempting to make mixed feeds and poultry feeds. Of course, they can get along in a local way, but they cannot do any shipping business by paying LCL freights on their 87 ingredients.—Royce T. Dorsey, Fort Worth, Tex.

**Indianola, Ind.**—The Indianola Feed & Supply Co. opened its new quarters here on April 7 in charge of H. H. Kirkpatrick, formerly of Des Moines, Ia. Mr. Kirkpatrick was connected with the Beaver Valley Milling Co. for 12 years and is thoroly familiar with the feed game. E. H. Felton of New Virginia, who is the head of the new feed concern, will remain in his home town to devote his time to local interests. All regular mill feeds will also be stocked, including oil meal, bran, tankage and minerals. A line of seeds will also be carried.

**Kansas City, Mo.**—The feed and flour brokerage business of Reynier Van Evera is to be continued with F. R. Botts as general manager. Mr. Van Evera, well known secretary of the American Corn Millers' Federation, passed away on March 31, as announced in these columns of the last number. Mr. Botts was formerly manager of the Los Angeles, Calif., office for the company, which branch is to be continued also. Rollin C. Mead, former manager of sales promotion for the Kansas Flour Mills Corporation, leaves in May to take over the management of the California office.

**Minneapolis, Minn.**—Construction is to start soon on a \$250,000 elevator and factory building for the Purina Mills, of St. Louis, Mo., according to a recent dispatch from C. E. McCartney, manager. As announced in this column in the March 25 number, the new structure will hold over 100,000 bushels of grain and will more than double the plant's present storage capacity. Stock feeds of various kinds are now manufactured in this Hiawatha avenue plant, and the company also owns the Ry-Krisp factory which turns out rye foods. In addition to these plants, the company also operates a small grinding mill at Columbia Heights, and this also is to be expanded by the addition of \$20,000 worth of grain tanks for storage purposes. Plans for the new buildings were drawn in St. Louis and contracts let to a St. Louis firm.—P. J. P.

**Springfield, Minn.**—Following a long and exhaustive investigation into the subject of balanced rations for chicks, pigs and other farm livestock, the Springfield Milling Co. has decided to launch a new venture, namely, that of manufacturing and marketing a line of chick starter and pig meal and kindred lines. The company expects to build up an extensive business in these lines in addition to maintaining the milling of flour as its major business. F. A. Ruenitz is president of this organization.—P. J. P.

**Minneapolis, Minn.**—Osborne Goodrich, treasurer of the William O. Goodrich Co. of Milwaukee, Wis., a recently acquired subsidiary of the Archer-Daniels-Midland Co., has been transferred to Minneapolis to become associated with the parent company. He remains treasurer of the subsidiary organization, however. Prior to supervising seed purchases, which duty he has of late been charged with, Mr. Goodrich had charge of sales of the old Goodrich organization. Hunter Goodrich, a brother of Osborne, is now sales manager for the Goodrich organization.

**Cattle on feed** in 11 corn-belt states on April 1 decreased 4 per cent in number to 96 per cent of last year's average. All of the states east of the Mississippi River showed reductions of 15 per cent and over. Iowa alone showed a decrease of 14 per cent. Offsetting these decreases are large increases in Nebraska and Kansas. The estimated number on feed as a percentage of last year are, by states, as follows: Illinois, 75%; Michigan, 82%; Wisconsin, 83%; Ohio, 85%; Indiana, 85%; Iowa, 86%; Missouri, 95%; South Dakota, 100%; Minnesota, 102%; Kansas, 112% and Nebraska, 115%.

**Cod liver oil** users and dealers are now protected against unscrupulous distributors of this feed ingredient, the federal government now removing from interstate commerce adulterated, misbranded or deteriorated oils. Millers and distributors of medicinal products containing unfit oil are now held responsible under present statutes. Hereafter, unless products labeled or represented as containing the cod liver oil vitamins have the recommended dosage, the Department of Agriculture will take action. Products represented as concentrates of cod liver oil naturally should contain both A and D vitamins in concentrations reasonably higher than those of a good grade of cod liver oil.

**German importations** of feed must be precisely named, so that the kind of raw ingredients can be distinguished beyond any question of doubt. General terms are forbidden, such as cake, bran or molasses feed, oil cake, feed cake, etc.; the law demanding self-explanatory descriptions as linseed cake, wheat bran, etc. Mixtures containing over half mineral materials must be branded as mixtures. Fancy or arbitrarily selected names are also ruled out. In sacked feeds of over 110 pounds (50 kilograms) or more a full statement is necessary as to the constituents, proteins, fats, etc., with but few exceptions. In mixed feeds the constituents and the percentages of each is required.

**"Poultry in Kansas"** is the enticing title of a report just off the press, issued by J. C. Mohler, secretary of the Kansas State Board of Agriculture. The publication is a complete compilation of the practices of Kansas poultry raisers and the recent developments in all phases of poultry production. It is of 458 pages, well illustrated with some 260 figures. It deals largely with chicken production, but turkey, duck, geese and guinea raising are given considerable prominence. The preparation of the report was in the hands of Samuel J. Gilbert, special assistant secretary, who is given "generous credit for efficient and thoro service" by J. C. Mohler. The report is fifth in a series of publications dealing with subjects of vital interest. It may be obtained, free of charge, by writing the Board of the State House, Topeka.

### New Feed Trademarks.

**The Royal Feed & Mfg. Co.**, doing business as Royal-Stafolife Mills, Memphis, Tenn., and Meridian, Miss., has filed trademark Ser. No. 262,123, the word "SUN-RISE," particularly descriptive of laying mash and hen feed.

**The Patent Cereals Co.**, Geneva, N. Y., has filed trademark Ser. No. 262,814, the letters "HOM-O-LASSES," particularly descriptive of stock feed made of hominy and molasses.

**Richie R. Sawyer**, doing business as Sawyer Grain Co., San Francisco, Cal., has filed trademark Ser. No. 247,214, particularly descriptive of poultry and livestock food. The mark consists of the letters "P-C" within an outlined diamond.

**Stanard-Tilton Mfg. Co.**, St. Louis, Mo., Alton, Ill., and Dallas, Tex., has filed trademark ser. No. 254,014, particularly descriptive of stock and poultry food. The mark consists of the word "AMERICAN BEAUTY," accompanied by a reproduction of a rose.

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Winnipeg, Manitoba

## Cottonseed Meal for Mixed Feeds.

High protein content and reasonably low price when compared with other products of similar feeding value have caused cottonseed meal to take an important place in the formulas of the majority of feed mixers. Amounts as high as 25% may be mixed in dairy feed, but only 20% is recommended, and varying amounts in feeds for other animals.

Cottonseed meal is one of the most valuable among feeds if properly used. Henry and Morrison, in "Feeds and Feeding," term it one of the most satisfactory of nitrogenous supplements for fattening steers and sheep when used in limited quantities. It produces firmer fat than corn.

The use of cottonseed meal in the dairy cattle ration tends to give the butter a higher melting point which is beneficial when other feeds used are inclined to cause cows to produce soft butter. The use of cottonseed meal in excessive amounts may cause the butter to be too hard.

Experimental work carried on by the various State Agricultural Experiment Stations during the past four years indicates that the so-called toxic qualities of cottonseed meal appear only when the cottonseed meal is used in excessive amounts or in a ration that is inadequate due to deficiencies. When sufficient roughage and other concentrates are fed to properly balance the ration, this effect is thrown off and the animal uses, not only the crude protein in the cottonseed meal to the fullest advantage, but also the energy value which is nearly as high as corn.

These experiments of State Agricultural Experiment Stations have, also, led to the discovery of the proper method of using cottonseed meal in the ration of swine. The University of Nebraska Station found in feeding trials conducted there that cottonseed meal and tankage mixed in equal parts by weight and fed as a protein supplement to corn gave more rapid and more economical gains than tankage used alone with the corn. These results were obtained in feeding trials carried on in the summer of 1926, the winter of 1926-27, and the spring of 1927.

Iowa, Missouri, and Texas Stations have, also, carried on work with hogs, proving that cottonseed meal when properly used in the ration of swine does not cause injury but gives economical and rapid gains.

Cottonseed meal is a product of the cotton oil mills. Cottonseed is run through a huller, the meats and hulls are separated, then the meats are crushed, heated, placed between cloths and subjected to pressure to take out the oil. A hard, yellowish cake is the residue and this is the product that is ground into meal. The annual production of cottonseed meal is approximately two and a half million tons which makes it a large and dependable source of concentrated protein.

Cottonseed meal usually contains 6% to 8% fat. The protein and fibre content vary with the thoroughness of the hulling and separating process and with the soil, weather, climatic and growing conditions surrounding the cotton plants. Crude protein content runs from 26% to 50%, mostly from about 36% to 45%.

Fresh, wholesome cottonseed meal has a bright yellow color and a sharp, nutty odor. When permitted to grow old, or when adulterated with hulls, or overheated in the cooking process, it will become dark and dull and its feeding value will be impaired. Feeding authorities agree that it is wise to use only the fresh, bright product.

The country grain dealer in diversified farming sections is often equipped with feed grinding and mixing equipment. He is in an excellent position to serve the farmers of his locality with properly blended and economical mixed feeds according to the individual needs. If the farmer raises quantities of corn, oats and other grains which constitute the principal ingredients of animal feeds, the grain dealer can grind these grains and mix in the concentrates such as cottonseed meal, bone meal, cal-

cium, salt, etc., giving the farmer whatever mix he may require properly to supplement the roughages with which he is already supplied.

Far-sighted grain dealers are taking advantage of their opportunities in this connection and many have already built up a profitable local trade with just such methods.

## Improved Bag Holder.

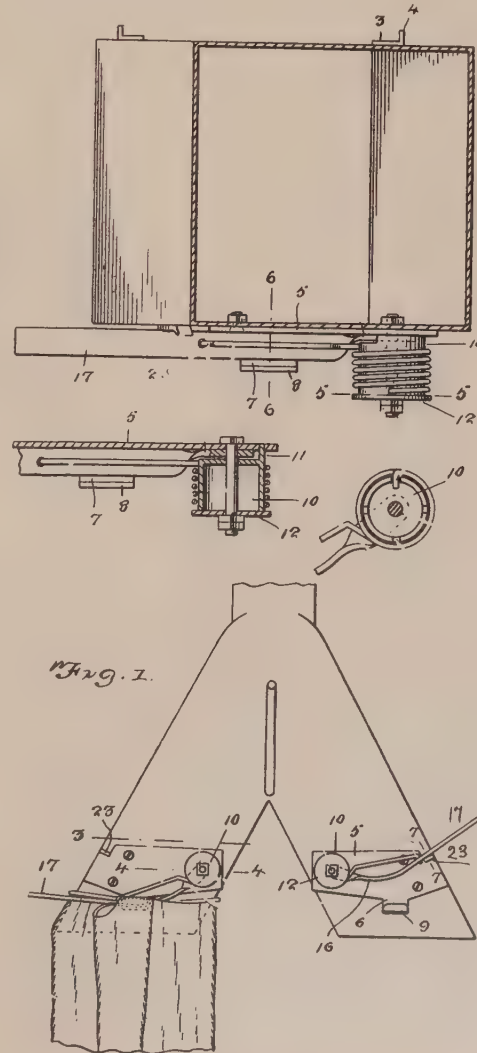
Since custom feed grinding has been taken on as a side line for grain elevators there has developed a demand for better sacking equipment. Quite often the farmer wants his feed sacked in his own bags, and naturally objects to having them torn by makeshift devices.

The bag-holder shown in the engraving herewith, and for which letters patent No. 1,662,764 have been granted to Otto E. Toman, can be easily and quickly attached to the outlet end of a hopper or to spouts connected with the hopper or the discharge of the separator. It will hold bags of different sizes without liability of tearing the bag regardless of the weight received therein.

On the rear face of the spouts is fixed a pair of angle plates, 3; with outwardly projecting hooks, 4; to engage a bag or sack. On the opposite faces of each of the spouts is a plate, 5; formed with a reduced depending portion, 6; that merges into an outwardly extending flange, 7; provided at its end with an upturned lip, 8.

A hollow drum, 10; formed with an extension, 11; is held from turning by this extension entering the plate, 5; and each of the levers arched at 16, have straight outer extensions, 17, designed to be received in the hooks formed on the plate, 5. Around each drum is wound a coil spring.

When the levers are swung to the position



Improved Bag Holder.

shown on the right side of Fig. 1 there is ample room for the bag over the mouth of the spout. The portion of each of the bags arranged opposite the hook on the plate, 5, is folded upon itself, as shown at the left hand side of Fig. 1. By simply swinging the lever out of the hook, 7, the filled sack may be readily removed from the spout.

## Feed Grinding as a Side Line.

By A. R. PALMER.

The country elevator operator who contemplates engaging in the grinding of feed as a side line has a choice of several methods of charging for custom grinding.

The charges at different points will be found to vary, the principal factor being the cost of power. Basing the charge on the number of sacks delivered is one method of charging favored by farmers who haul their grain to the elevator in sacks. At other points the feed is handled in bulk and the charge made by the depth of the grain in the wagon-box or the weight in 100 lbs.

Screenings from the grain cleaning machines in the elevator can be turned to profitable account in the feed mill. Ground wheat screenings fed to sheep with a roughage of alfalfa or clover hay are about equal to wheat in feed value, and effect a saving to the feeder. Even the weed seeds separated out can be turned to good account if finely ground into mixed feeds. Other materials available at the elevator are wild oats and frosted wheat, as well as odd lots of grain not good enough to ship.

To keep the feed from being blown away by the wind when it is desired to haul the feed away in bulk it is necessary to have a covered driveway. Of course, all such additional conveniences add to the cost of giving the service and make it advisable to charge more for grinding.

Good work can be done with any of the three types of grinders in general use, such as rolls, attrition mills and hammer mills. Some mechanical skill is needed to keep rolls in tram and sharp.

Attrition mills have the advantage of being changeable from coarse to fine grinding while the mill is running.

Hammer mills have the advantage of grinding so finely that the small weed seeds are killed. Nothing can pass out thru the screen until the hammers have reduced the material to the desired fineness. This style of mill will handle anything.

Hog feed needs to be fine ground, while horse and cattle feed can be ground coarse at a great saving in cost for grinding.

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### Grinding Plant at Plano.

Opportunity in the feed grinding business was recognized by the Farmers Cooperative Grain Co. at Plano, Ill., before anyone else was cognizant of the growth of feeding on the surrounding farms. In August, 1926, the company erected a feed grinding house and installed a hammer mill. During the following year more than 2,000 tons of grain was ground and the business is constantly growing.

The grinding house is a 14x16 ft. iron-clad structure adjoining the south side of the elevator. It is fitted with a hopper bin of approximately 150 bus. capacity. Grain is dumped into the elevator pit and spouted down to the hopper bin feeding the Jay Bee No. 3 standard hammer mill. Then it is reelevated thru the collecting apparatus of the grinder and run into a sacking bin or direct into the patron's wagon or truck. A 50 h. p. 3-phase G. E. motor is direct connected to the mill to meet the power requirements.

Manager L. A. Sears found thru early tests that his power costs consume 38% of the gross proceeds. Average costs are approximately 80 cents a ton. The company has a 4 3/4 cent gross rate, with a discount which brings the net cost down to 3 3/4 cts.

Patrons are charged 8 cents for grinding ear corn coarse, 9 cents for grinding ear corn medium, 10 cents for grinding ear corn and small grain mixed together, 12 cents for fine grinding of small grains. A minimum charge for any lot of grinding is set at 50 cents, it having been learned that starting the grinder alone costs 25 cents. Operation of the grinder is one of the duties of the elevator man.

The elevator proper is of reinforced concrete 24x28 by 65 ft. high, having capacity for 20,000 bus., in its 9 bins. The leg is fitted with Minneapolis V buckets and is pulled by a 1 1/2 h. p. F.-M. motor in the cupola. The power is transmitted thru a jack-shaft.

Incoming truck and wagon loads are weighed over a Fairbanks 10-ton truck scale. Two Kewanee all-steel truck lifts, one for trucks

and one for wagons, are provided for dumping grain. Both obtain their air from the same pressure tank. A 1 1/2 h. p. Fairbanks-Morse motor operates the air compressor.

Outbound grain is weighed thru a 400-lb. Fairbanks automatic scale.

The company's feed warehouse is a 16x30 ft. iron-clad building on the east side of the elevator. This is rapidly being out-grown and present plans call for erection of additional warehouse space.

In addition to its grain and feed business the Plano Grain Co. does an extensive business in coal, seed, lumber, fencing, building material and other supplies for the farm.

### Adulteration and Misbranding.

Arcady Farms Milling Co., Kansas City, Mo., shipped quantities of molasses feed into Kansas and Iowa which was adulterated, according to federal testimony, for deficient protein and fat content and excessive fibre content. On Sept. 7, 1927, a fine of \$50 was imposed.

Continental Milling Co., Ellicott City, Md., shipped 300 bags of middlings into Pennsylvania, judged misbranded by federal authorities for light weight. On Sept. 20, 1927, costs and the execution of \$1,500 bonds was imposed, conditioned in part that it be not sold or otherwise disposed of until examined and passed by the Federal Department of Agriculture.

Empire Cotton Oil Mills, Valdosta, Ga., shipped 300 sacks of cottonseed meal into Florida, which were adulterated and misbranded, according to federal testimony. The product was deficient in ammonia. On March 26, 1927, no claimant having appeared for the property, judgment of condemnation and forfeiture was entered, and it was ordered by the court that the 9 sacks of the product actually seized be destroyed by the U. S. Marshal.

Marshall Mill & Elevator Co., Marshall, Tex., shipped 300 sacks of red oats into Arkansas, alleged misbranded for short weight by federal authorities. On May 25, 1927, the Hayes Grain & Commission Co., Little Rock, Ark., appeared as claimant for the property. Payment of costs and the execution of a \$100 bond was imposed, and it was further ordered that the said product be reconditioned by adding sufficient pounds of the article to each sack to bring it up to the declared weight.

International Vegetable Oil Co., Augusta, Ga., shipped 300 sacks of misbranded cottonseed meal into Maryland, deficient in protein content, according to federal allegations. In September, 1927, Thomas & Peck, Frederick, Md., having appeared as claimant for the property, judgment of condemnation and forfeiture was entered, and it was ordered by the court that the product be released upon payment of costs of the proceedings and the execution of a bond in the sum of \$1,200, conditioned in part that it be relabeled to show its true protein content.

### Minrol-Protin.

Minrol-Protin is the result of scientific research and experiment to determine the elements lacking in grain and cereal products to produce health, growth and vitality of poultry, increase the assimilation of food in the intestinal tract of the individual birds and produce the reaction necessary for profitable poultry production.

During the progress of this work the carcasses of numerous birds were analyzed and the elements found therein catalogued. Comparisons were made that definitely determined a lack of certain elements in the carcasses of birds that were slow of development, of low vitality or of a general run-down condition. These deficient elements were almost entirely of a mineral nature.

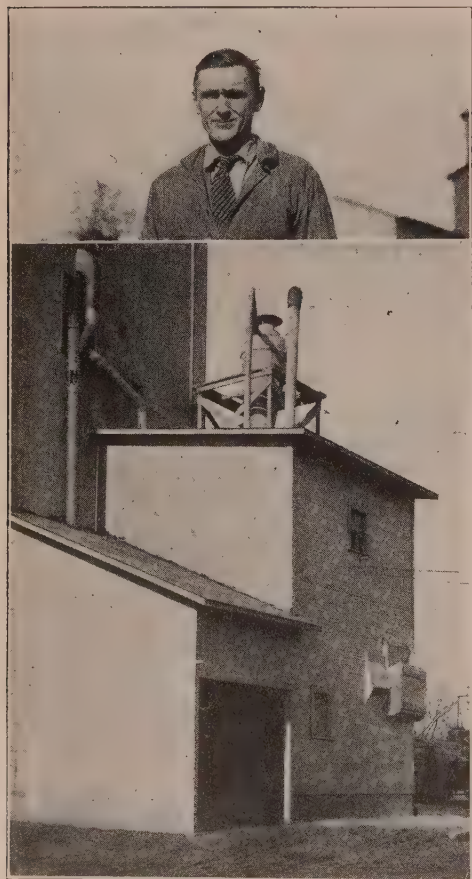
With this information as a foundation tests were made on live birds of all ages by adding to the grain ration specific minerals at first and then a mixture of organic and inorganic. These tests proved that by supplementing the grain ration with a complete mineral mixture composed of elements from both organic and inorganic sources, poultry of all kinds improved in growth, health, vitality and production.

These experiments and tests resulted in Minrol-Protin, the complete mineral mixture. It contains all the elements necessary for supplementing the grain ration.

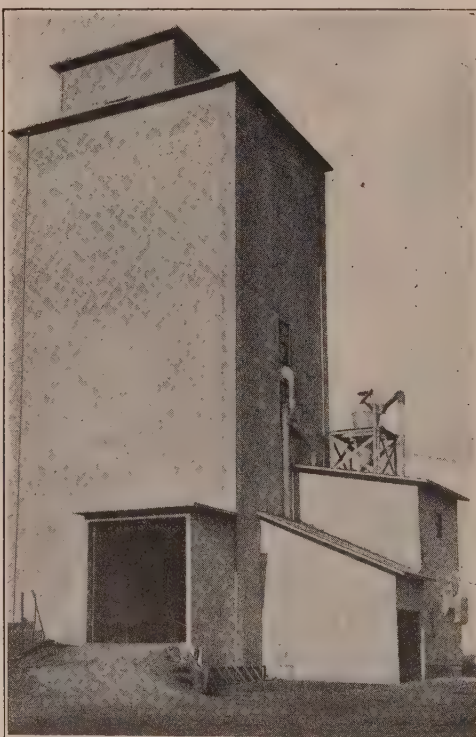
The formula for the manufacture of Minrol-Protin is covered by U. S. Patent No. 1645703 and is the only product of its kind to merit this honor.

If you mix your own feeds get a supply of Minrol-Protin and include it in every mixture. The results will be gratifying.

The value of surplus poultry and eggs sold from Kansas flocks increased from \$691,263 in 1881 to within a few hundred dollars of \$26,000,000 in 1927.



Farmers Feed Mills at Plano, Ill., and Manager Louis A. Sears.



Farmers Concrete Elevator and Feed Mill at Plano, Ill.

## CHICK - FEEDS

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## Notes on Animal Feeds.

**Alfalfa meal production** in the United States during January totaled approximately 38,500 short tons.

**Brewery by-products**, including dried grains, malt sprouts, yeast and vinegar-dried grains, are often high in feeding value.

**A control ration** for coccidiosis in poultry is described in Bulletin No. 202, available from the American Dry Milk Institute. The ration was developed in California and contains 40 per cent dry skim milk.

**Livestock** other than poultry ranks first after grain and forage on the production list of Kansas farms, followed by poultry, dairying and garden and fruit. The average income from poultry was 31.3 per cent.

**The largest crop** in the whole grain history of the Dominion, surpassing by far all records of previous years, will be sown in Western Canada this year, according to Norman M. Paterson, of the N. M. Paterson Elevator Co., Ltd.

**Milk in some form** should be fed poultry with grain rations to obtain the best results. It should be fed to laying hens as well as growing chicks. A profit cannot be expected when the proper feeds are not used.—From "Poultry in Kansas."

**"Minimum Mineral Requirements in Cattle,"** by A. Theiler, H. H. Green, and P. J. DuToit (Jour. Agri. Sci. [England], 17 (1927), No. 3, pp. 291-314, figs. 6).—It was found that the phosphorus requirement for growth is higher than the calcium requirement, a ratio of 3.1 of phosphorus to calcium not being out of line. Two gm. of sodium oxide and less than 5 gm. of chlorine per day are required. The animals were raised to mature weight when by feeding high phosphorus rations the usual alkaline reaction of the urine was shifted to the acid side. Abnormal calves were born in the group receiving rations deficient in phosphorus.

**Dog feed** of a balanced ration is not a new side line for elevators to handle, but is growing in importance daily, particularly in heavy stock and poultry feeding sections where the farmers realize and appreciate the value of a balanced ration.

**Cane molasses** in poultry feeds adds materially to the palatability thereof, and can be used in place of corn, pound for pound up to 10 parts of the rations used for growing chicks, laying hens and fattening fowls, according to an Ohio Experiment Station Bulletin.

**Molting in poultry** should be accompanied with hydrolyzed hoofs and hair meal, hydrolyzed feathers, and other mash ingredients rich in sulphur, according to recent accredited recommendations. Molters should be segregated during this period, it is pointed out.

**Peanut meal** of 48 per cent protein content is now offered thruout some of the Southern states as a supplement to regular feeds. The crude fiber runs about 9 per cent and the fat around 7 per cent. The meal is finely ground. Whole-pressed peanut feed is also popular in some parts of the South, the oil having been extracted from the nut. The protein content of this latter feed is lower, however, running around 34 per cent, and the fiber content higher, averaging close to 20 per cent.

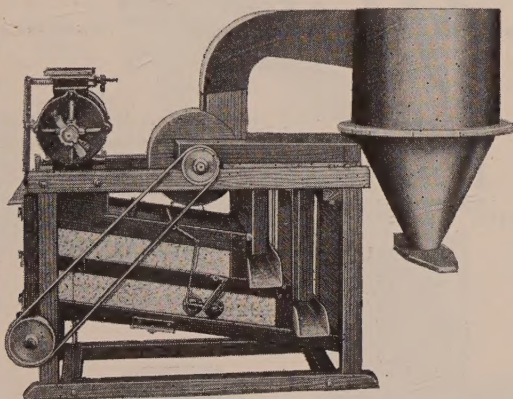
**Feed causing soft pork**, of which there is much complaint at present, has been found by the Department of Agriculture to be principally a mixture of one-fourth soy beans with three-fourths corn, fed to hogs in dry lot. The oily fat which is obtained from the soy bean feed causes the softness. Several state agricultural experiment stations are cooperating with the federal department of agriculture in working out a system of feeding which will not sacrifice these feed-stuffs so common in hog-raising territory and yet not produce soft pork.

**Digestibility** and palatability of a ration are two pertinent factors of poultry feed consumption, but it has been found that consumption also varies in direct proportion with production. A grain and mash ration will be consumed by Leghorns at the rate of from 70 to 75 pounds annually.

**Hogs and poultry** consume most of the tankage fed in the United States. Other high protein feeds may be substituted for tankage in their rations, but its feeding is especially influenced by the qualities of skim milk or buttermilk available for feeding on farms where they are kept. Relatively limited quantities are fed in the South, outside of Texas. Important poultry sections in the Northeast and on the Pacific Coast are also material factors in the demand for this feed.

**"The mineral mixture** that is made up of uneven particles, some of these particles being quite large, others small, is not so desirable as a nice, uniform, well-ground mixture, some 90 per cent or so of which will go thru a 100-mesh sieve, that is a sieve with 100 meshes to the inch, and approximately two-thirds, or better, three-fourths, would go through a mesh sieve not larger than 200 spaces per inch. It is permissible that a part of the bone product as well as charcoal be not so finely ground because of practical difficulties. Practical uniformity of the mineral mixture indicates that care and diligence have been exercised in its making."—John M. Evvard, Chief in Sheep and Beef Cattle Investigations, Iowa Agricultural Experiment Station, and Professor in Animal Husbandry, Iowa State College, Ames, Ia., in "Minerals and Feeding."

**Co-operative marketing** and purchasing ass'ns reporting to the U. S. Dept. of Agriculture on Jan. 1, 1928, totaled 11,340, according to a report issued April 14 by the Department, which stated that 30.5% were handling grain, dry beans or rice. This is equivalent to 3,458, for the whole United States.



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For Retail Coal Dealers

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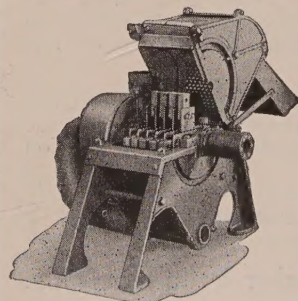
It contains spaces for 10,000 wagon loads. Each page is ruled with column headings, as follows: Date, Ledger Folio, Buyer, Driver, Gross, Tare, Net, Kind, Price, Amount, Cash, Charge.

This book is 10½x15¾ inches and contains 200 numbered pages of linen ledger paper. Well bound with best binder board, covered with black cloth, with red keratol back and corners. Weight, 4 lbs.

Order Form 44 Improved. Price, \$4.00.

**Grain Dealers Journal**

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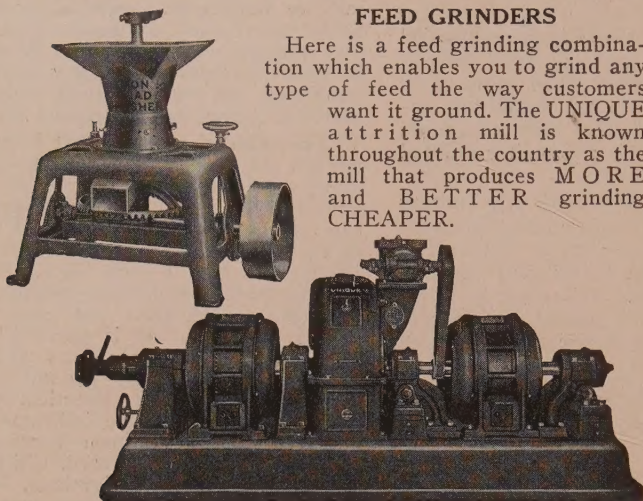
Minneapolis, Minn.

# OF COURSE YOU HANDLE FEEDSTUFFS! BUT WHAT PROFIT DO YOU MAKE?

We can show you how to make your own feeds at a good substantial profit and also increase your business by giving better service to the farmers in your community.

## FEED GRINDERS

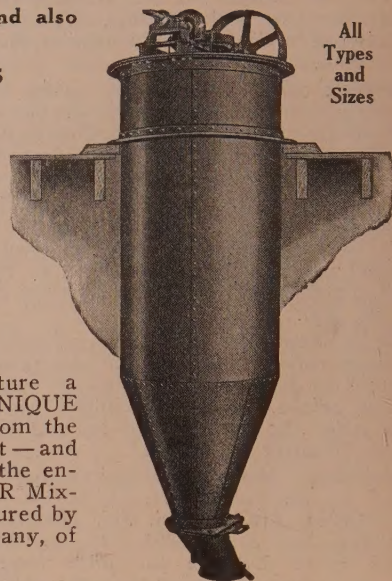
Here is a feed grinding combination which enables you to grind any type of feed the way customers want it ground. The **UNIQUE** attrition mill is known throughout the country as the mill that produces **MORE** and **BETTER** grinding **CHEAPER**.



## FEED MIXERS

The **UNIQUE** Vertical Mixer is one of the most popular feed mixers on the market. The first cost is small — the machine is easy to install and economical to operate, and will mix all kinds of feeds at a profit for you.

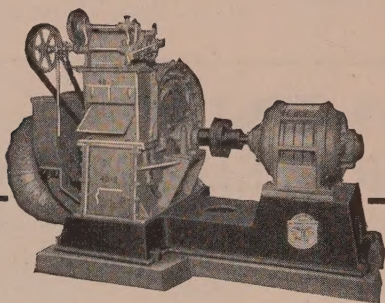
We also manufacture a complete line of **UNIQUE** Horizontal Mixers—from the smallest to the largest—and have just taken over the entire Line of **GARDNER** Mixers formerly manufactured by the Gedge-Grey Company, of Lockland, Ohio.



All  
Types  
and  
Sizes

Let us show you the way to greater profits in handling feedstuffs. Write us for catalogs on **UNIQUE** Feed Milling Machines or get in touch with our representative.

**ROBINSON MFG. CO., 42 ROBINSON BUILDING, MUNCY, PA.**  
CHICAGO OFFICE—222 W. ADAMS ST.



## America's Leading Hammer Mill

The **GRUENDLER** of today is the greatest **GRUENDLER** ever built. Highest capacity per horsepower ever obtained in any grinding machinery. Positive automatic feeder and tramp iron catcher. Quick change of screens while machine is in operation. Adjustable for coarse or fine grinding.

All grinding parts can be replaced or taken out without removing the feeder or top. Solid base and large ball bearings assure absolute protection against shut down.

Write for Bulletin on all **GRUENDLER** Feed Mills

**Gruendler Patent Crusher & Pulverizer Co.**  
1103 Landreth Bldg. St. Louis, Mo.

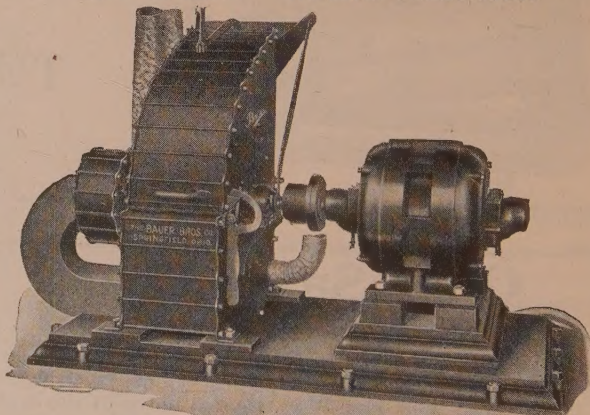
Established  
1878

# Bauer

Established  
1878

## HAMMER MILL

BELT DRIVE MOTOR DRIVE  
BALL BEARING ALEMITE LUBRICATION



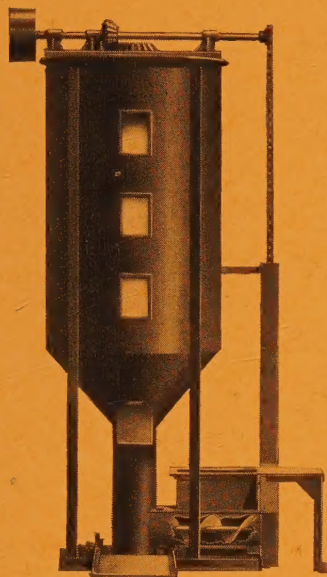
All Steel Construction. Renewable Linings. For the elevator operator who wants durability and economical performance. One-piece steel Fan encased in steel. A Hammer Mill with trouble eliminated. Built with accuracy and precision characteristic of "Bauer" Attrition Mills.

Write for Catalogue

**THE BAUER BROS. CO.**  
SPRINGFIELD

OHIO

# HAINES COMBINATION MIXER



For the accurate and rapid mixing of dry feeds for stock and poultry.

All steel construction—requires minimum floor space and power — shipped ready to operate.

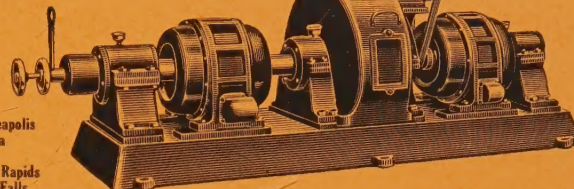
Convenient — Durable — Efficient.

**SALES  
REPRESENTATIVES  
WANTED**

**THE GRAIN MACHINERY CO.**  
Marion, Ohio

## DIAMOND HULLER CO.

WINONA, MINN. Dept. C



Minneapolis  
Omaha  
Fargo  
Cedar Rapids  
Great Falls

Ask for our large, illustrated Catalog and complete descriptions of Diamond Mills

## A Gold Bond Investment

Every DIAMOND Ball Bearing Attrition Mill is a Gold Bond Investment for Elevator Owners because:

It pays big dividends in annual earnings long after the price is forgotten.

It will work for 25 years or more and its depreciation and upkeep are practically negligible.

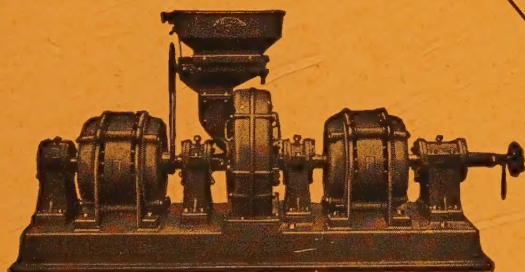
It is recognized as the standard Attrition Mill in all states of the Union—a position it has earned by honest performance for 40 years.

A complete installation of DIAMOND Mills in the Farmers Elevator Co., of Enderlin, N. D., is an outstanding case where satisfactory performance long life and economy were considered.

Let us tell you why DIAMOND BALL-BEARING ATTRITION MILLS are the most profitable for you to own.



Farmers Elevator Co., of Enderlin, N. D.



## Turning On the Spotlight

The literature the coupon brings to you literally turns a spotlight on the Munson Ball Bearing Attrition Mill.

The construction and operation are explained in detail. You will also get a good idea why Munson sales to millers in 1927 were the largest ever.

Munson Mill Machinery Co., Inc.  
Utica, N. Y.

**Munson Mill Machinery Co., Inc.**

Established 1825

UTICA, N. Y.

Representatives: Strong, Scott Mfg. Co., Minneapolis, Minn.; F. J. Conrad, Cedar Rapids, Ia.; A. D. Hughes & Co., Wayland, Mich.

Gentlemen:

Without obligation, send us catalog describing the Munson Attrition Mill in detail.

Name .....

Address .....

For .....

G D 428

***“Lightning Struck Elevator but Did No Damage Account Rods Installed Last Year.”***

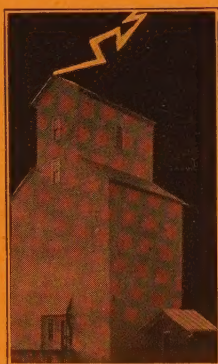
***“Elevator Struck by Lightning—Total Loss—Send Adjuster.”***

Those are actual messages received almost simultaneously from two of our policyholders. The one house was protected at an actual cost of \$45.00—the other could have been but wasn't.

The one company is doing business as usual—the other is watching its business go to its competitor.

All because of a “penny-wise” idea of economy.

Could you afford to be without your elevator to save any such amount?



Lightning protection is both cheap and efficient. Lightning is no respecter of good intentions. If you have a fire the chances are one to four that it will be caused by lightning. Can you take any such chance of losing your business regardless of how much insurance you may have?

We have assisted hundreds of grain men to get their houses protected at reasonable cost; we should be glad to do the same for you, if you will write us.

***Don't Put It Off—Do It Now!***



INDIANAPOLIS, IND.

J. J. FITZGERALD, Secretary-Treasurer

C. R. McCotter, Assistant Secretary and Western Manager, 733 Omaha Grain Exch., Omaha, Neb.

**FIRE**

**WINDSTORM**

**AUTOMOBILE**

*We Cover All Classes of Property*